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Y-MIND

CENTER FOR PREVENTION
OF MENTAL DISORDERS

SAO PAULO SCHOOL OF ADVANCED SCIENCE
FOR PREVENTION OF MENTAL DISORDERS

March 25th to 29th, 2013 Sao Paulo | Brazil

FINAL PROGRAM

SUMMARY

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Dear colleagues,

On behalf of the Organizing Committee of the Y-Mind São Paulo School of Advanced Science for Prevention of Mental Disorders, funded by the State of São Paulo Research Council (FAPESP), I am very pleased to have the honor of welcoming you to this exciting event to be held at the Federal University of São Paulo. The global burden of Mental, Emotional and Behavioral disorders (MEB) is high, surpassing that of cancer and cardiovascular diseases. MEB are today understood as neurodevelopmental brain disorders shaped by complex gene-environment interplay. Although a large proportion of MEB cognitive and emotional impairments start early in life, they have largely been overlooked in public health. Prevention is the most effective way to reduce the burden: however limited biological knowledge, poor treatment and service effectiveness, as well as stigma hamper the prevention of MEB. The Y-Mind School has been structured to foster prevention of MEB by selecting projects worldwide in the following areas: 1) Epidemiology and Risk Factors; 2) Translational research – Animal Models; 3) Neurobiology, Neurodevelopment and Brain Circuits in early stages of MEB disorders; 4) Effective Interventions to prevent MEB; and 5) Services, Stigma & Awareness. The Y-Mind School was planned to attract the most prestigious academics and young researchers worldwide who have embraced prevention of MEB at the forefront line of global psychiatry. I wish all of you -- academics, nationals, and foreign students at the Y-Mind School-- a very pleasant stay in Brazil, enjoying the culture, friendship and hospitality. I hope the Y-Mind School will be a friendly and virtuous learning environment to promote exchange among participants in different areas of knowledge, in order to approach MEB prevention from a global perspective. In regards to young researchers in particular, we expect they can interact and build up international partnerships to embrace MEB prevention projects from a global perspective.

Yours sincerely,

Dr. Jair Mari,

Coordinator

Y-Mind Advanced Science School

Monday | 25.3

Tuesday | 26.3

Time	Chair: Jair Mari	Time	Chair: Elisa Britzke
9:00 - 9:40	Jair Mari <i>Y-Mind</i> - Center for Mental Disorders Prevention	8:30 - 9:10	Bruce Cuthbert <i>Toward the Future of Psychiatric</i> <i>Diagnosis: The NIMH Research</i> <i>Domain Criteria Project</i>
9:40 - 10:30	Jim Van Os <i>The ontogenesis of psychosis in the general population:</i> <i>perspectives of diagnosis, treatment and prevention</i>	9:10 - 9:50	Stan Kutcher <i>International school mental health: global approaches, global</i> <i>challenges, and global opportunities</i>
		Chair: Acioly Lacerda	
10:45 - 11:30	OPENING CEREMONY	10:10 - 10:50	Helen Herrman <i>Promoting the mental health of young people: Prevention,</i> <i>mental health promotion and early intervention</i>
		10:50 - 11:30	Maria Oquendo <i>Estimating risk for suicide attempt and development of</i> <i>prevention strategies</i>
11:30 - 12:20	Prof. Marie-Ann van Sluys <i>FAPESP Presentation</i>	11:30 - 12:10	Hakon Hakonarson <i>Genome-wide association studies for psychiatric disorders</i>
12:20 - 13:00	Lunch	12:00 - 13:00	Lunch
13:00 - 14:30	Poster discussion	13:00 - 14:30	Poster discussion
14:30 - 17:00	Seminars		
17:00 - 19:00	Short Courses		
	Helen Herrman <i>Preventing Mental Illness and Promoting Mental Health:</i> <i>Concepts and evidence</i>	Joan Kaufman <i>Understanding how epigenetic mechanisms can translate early-life experiences into</i> <i>lasting cellular memories at the root of mental disorders</i>	
	Bruce Cuthbert <i>Toward the Future of Psychiatric Diagnosis: The NIMH Research</i> <i>Domain Criteria Project</i>	James Frauenthal <i>Mathematical Modeling in Epidemiology</i>	
	David Pauls <i>Genetic mechanisms for the manifestation of complex</i> <i>developmental behavioral disorders.</i>	Brian Rush <i>Evaluation of Mental Health Services and Systems</i>	

Wednesday | 27.3

Thursday | 28.3

Friday | 29.3

Time	Chair: Andrea Jacowski	Chair: Marcelo Feijó	Chair: Mirian Hayashi
9:00 - 9:40	Myrna Weissman <i>Translational epidemiology in psychiatry: linking population to clinical and basic sciences</i>	Ronaldo Laranjeira <i>Brazilian National Alcohol and Drugs Survey</i>	Vanessa Abilio <i>The Spontaneously Hypertensive Rat (SHR) strain: how animal models can help us advance the treatment and prevention of neuropsychiatric diseases</i>
9:40 - 10:30	David Pauls <i>Genetic mechanisms for the manifestation of complex developmental behavioral disorders</i>	Marcelo Feijo Mello <i>Early Trauma and Post-Traumatic Stress Disorder</i>	Gustavo Turecki <i>The Early Life Environment: Adversity, Genomic Plasticity and Psychopathology</i>
	Chair: Sintia Belangero	Chair: Rodrigo Bressan	Chair: Isabel Bordin
10:45 - 11:30	Guilherme Polanczyk <i>The National Institute of Developmental Psychiatry for Children and Adolescents: where we are, where we are going</i>	Cristiane Duarte <i>Context and the Development of Psychopathology in Children</i>	John Ronning <i>Early intervention improves cognitive and behavioral development of children born prematurely</i>
	Jose Alexandre Crippa <i>The use of cannabidiol, a Cannabis sativa constituent, in neuropsychiatry</i>	Rodrigo Bressan <i>At Risk Mental State for psychiatric disorders</i>	Flavio Kapczinski <i>Staging and neuroprogression in psychiatry</i>
11:30 - 12:20	Ricardo Araya <i>School intervention and mental health in adolescents</i>	Yanki Yazgan <i>Preventive Developmental Approaches from Turkey: Increasing Father Involvement, School Based Prevention and Public Awareness</i>	Luis Augusto Rohde <i>Neurobiological evidences for ADHD as a neurodevelopmental disorder</i>
12:20 - 13:00	Lunch		
13:00 - 14:30	Poster discussion		
14:30 - 17:00	Seminars		
17:00 - 19:00	Short Courses		
	Gerome Breen <i>Modern genetic epidemiology in psychiatry</i>		
	Stan Kutcher <i>Mental Health Curriculum in High School</i>		
	Gustavo Turecki <i>Behavioral epigenetics</i>		
Evening	LIBBS FUNDED SOCIAL ACTIVITY		



CONFERENCES OF THE Y-MIND SAO PAULO SCHOOL OF ADVANCED SCIENCE FOR PREVENTION OF MENTAL DISORDERS



BRUCE CUTHBERT, Ph.D., is Director of the Division of Adult Translational Research and Treatment Development (DATR) at the National Institute of Mental Health (NIMH). He also coordinates the NIMH Research Domain Criteria project to develop neuroscience-based criteria for studying mental disorders. Dr.

Cuthbert returned to NIMH in January 2010, following four years as a professor of clinical psychology at the University of Minnesota. He previously served as Chief of the Adult Psychopathology Research Branch at NIMH, after seventeen years on the faculty at the University of Florida. Dr. Cuthbert received his Ph.D. in clinical psychology and psychophysiology from the University of Wisconsin-Madison. He is known for his research on the psychophysiology of emotion, and translational research on the psychopathology of anxiety disorders. He was elected president of the Society for Psychophysiological Research in 2004 and is a fellow of the Association for Psychological Science.

CONFERENCE | TOWARD THE FUTURE OF PSYCHIATRIC DIAGNOSIS: THE NIMH RESEARCH DOMAIN CRITERIA PROJECT

While major revisions are underway to the two major psychiatric manuals (DSM and ICD), the fundamental nature of these nosologies remains based upon presenting signs and symptoms. Research increasingly reveals that current definitions do not reflect relevant neurobiological and behavioral systems—impeding not only research on etiology and pathophysiology, but also the development of new treatments. The NIMH began the Research Domain Criteria (RDoC) project in early 2009 to develop a research classification system for mental disorders based upon dimensions of neurobiology, cognitive function, and observable behavior. The RDoC project is intended for research purposes, with the aim of conducting studies that examine fundamental biobehavioral dimensions that cut across current heterogeneous disorder categories. This presentation summarizes the rationale, status, and long-term goals of the NIMH RDoC project, and major differences in conception and emphasis as compared to the DSM and ICD revisions. Future diagnostic systems cannot reflect ongoing advances in genetics, neuroscience, and cognitive science until a literature organized around these disciplines is available to inform the revision efforts. The goal of the RDoC project is to provide a framework for research to transform the approach to the nosology of mental disorders.



CRISTIANE S. DUARTE is Assistant Professor of Clinical Psychology in the Division of Child and Adolescent Psychiatry, Columbia University. She obtained her doctorate at the Department of Psychiatry, Federal University of São Paulo, Brazil and a Masters in Public Health (MPH)

from Columbia University. Her research is based on innovative and large-scale population-based studies designed to generate knowledge of high public

health impact about mental disorders in children and adolescents. Using state-of-the-art sampling, recruitment and assessment methodologies, Dr. Duarte has been involved in studies that generate population-based, intervention-driven information to improve mental health outcomes among underserved, hard-to-reach, frequently understudied, populations of children and adolescents in the US, Puerto Rico and Brazil. This work has been supported by agencies such as the US National Institute of Health (NIH), the National Alliance for Research in Schizophrenia and Depression (NARSAD) and the Robert Wood Johnson Foundation (RWJF). As part of her work in Brazil, Dr. Duarte has formed many active partnerships aiming to generate empirical evidence related to mental health services for children, with emphasis on evolving Brazilian public health strategies of worldwide interest, such as the Family Health Program. Part of this work is currently being supported by the US National Institute of Mental Health (NIMH). Dr. Duarte is also a member of the Violence and Child Rights Research Consortium, a Brazilian-Norwegian collaboration geared towards the examination of longitudinal patterns of service utilization by youth with mental disorders living in a violent area. Besides her work in Brazil, Dr. Duarte is involved in international collaborations addressing topics of importance in global mental health such as child mental health awareness, exposure to trauma, obesity and mental health, or cultural experiences and mental disorders. She reviews and publishes articles in journals in the areas of psychiatry, psychology, public health, and pediatrics.

CONFERENCE | CONTEXT AND DEVELOPMENT OF PSYCHOPATHOLOGY IN CHILDREN

Children grow up in diverse contexts, interacting with different social, cultural and familial environments. Interest in the role of contextual factors in the development of psychiatric disorders has been recently renewed due to growing evidence supporting previously unknown pathways relating contextual stressors such as neighborhood environment, discrimination and child maltreatment to psychiatric disorders. In the last few years, novel evidence has reinforced the notion that most mental disorders originate early in life and that mechanisms such as neuroendocrine responses and epigenetic changes are likely links between contextual stressors and psychopathology. Interest in specific contextual factors has also been motivated by their malleability and potential for translation into large-scale public health intervention strategies. However, advances in knowledge about biological mechanisms involved in the etiology of psychiatric disorders have not always been closely accompanied by refinement in conceptualization, measurement and design of studies of these contextual factors in the field of developmental psychopathology. We will illustrate the advantages of emphasizing contextual factors for the development of child psychopathology using three large-scale ongoing longitudinal studies of three distinct populations: children of arrested parents, children of World Trade Center exposed parents and children from a minority ethnic group (Puerto Ricans) living in a highly deprived context in the US (South Bronx), as compared to children from the same ethnic group living in their context of origin (Puerto Rico). Based on these examples, future perspectives and directions for the study of context in childhood and psychiatric disorders later in life are proposed.



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DAVID PAULS was the founding director of the Psychiatric and Neurodevelopmental Genetics Unit (PNGU). On July 1, 2011 he stepped down as director. Prior to coming to Harvard in September 2001, he was the Professor of Psychiatric and Neurobehavioral Genetics in the Child Study Center at Yale University. Over

the past 30 years, his research has focused primarily on the genetics of child neuropsychiatric disorders. Research under his direction has led to a better understanding of the inheritance of the Gilles de la Tourette Syndrome (GTS), Obsessive Compulsive Disorder (OCD), specific reading disability and the autism spectrum disorders. Until recently, he led three separate international consortia of investigators devoted to finding genes for GTS, OCD, trichotillomania and related conditions. The focus of Dr. Pauls' research has been on elucidating the underlying etiologic mechanisms important for the expression of human behavior. His primary goal has been to understand the both genetic and non-genetic factors that underlie the manifestation of specific behaviors that begin in childhood and continue over the life course. His research has focused on five different developmental neuropsychiatric disorders: the Gilles de la Tourette syndrome, obsessive compulsive disorder, high functioning autism/Asperger's syndrome, specific reading disability and trichotillomania and related disorders. Dr. Pauls is the author of over 270 peer-reviewed articles, 60 book chapters and one book. Most of his work was funded by grants from the National Institutes of Health.

CONFERENCE | GENETIC MECHANISMS FOR THE MANIFESTATION OF COMPLEX DEVELOPMENTAL BEHAVIORAL DISORDERS.

It has become clear over the last decade that the underlying genetic mechanisms for developmental disorders is significantly more complex than was originally thought. In this course we will review the various genetic models that have been proposed and summarize recent findings on the genetics of childhood onset mental disorders including Gilles de la Tourette syndrome, obsessive compulsive disorder, attention deficit hyperactivity disorder and autism spectrum disorders.



FLÁVIO KAPCZINSKI is a full professor at the Federal University of Rio Grande do Sul, Director of Research at Hospital de Clínicas de Porto Alegre and Head of the National Institute for Translational Medicine. He is a consultant for the National Council for Scientific and Technological Development (CNPq) and member of

the Brazilian Academy of Sciences. His research is centered on the investigation of the pathophysiology of bipolar disorder as well as innovative treatments for this condition. His research has been funded by organs of the Brazilian Federal

Government, such as CNPq and CAPES as well as by non-profit international organizations, including the Brain & Behavior Institute and Stanley Medical Research Institute. His intellectual production includes over 300 published papers, with over 4600 citations and an H-index of 35. He is editor in-chief of Trends in Psychiatry & Psychotherapy and is currently on the editorial board of several high-impact journals, including the Journal of Psychiatric Research, Acta Psychiatrica Scandinavica and the Journal of Psychiatry and Neuroscience.

CONFERENCE | STAGING AND NEUROPROGRESSION IN PSYCHIATRY

The apparently progressive nature of a considerable proportion of cases of bipolar disorder has been acknowledged in recently proposed clinical staging models. Their common feature is placing the illness in a continuum progressing from a latent or asymptomatic form (stage 0 or latent) to a chronic, unremitting presentation (stage IV or unremitting). This has been part of an attempt to facilitate and refine diagnosis, treatment selection, and establish a prognosis. The study of the progressive nature of some cases of bipolar disorder has given rise to the hypothesis of neuroprogression, which postulates that different stages of bipolar disorder are associated with distinct neurobiological underpinnings. Of note, the duration of inter-episode intervals seems to be reduced with the recurrence of acute episodes, and progression of bipolar disorder may also be associated with several other unfavourable clinical outcomes: lower responsiveness to treatment, especially with lithium and cognitive behavioral therapy, worse treatment outcome of family psychoeducation, higher rates of comorbidity, functional impairment, increased cognitive dysfunction, and an augmented risk of suicide and hospitalization. Given that bipolar disorder may be intimately associated with chronic stress response and coping mechanisms over the course of illness, we propose that cellular resilience mechanisms may play a key role in the neuroprogression in bipolar disorder. Cellular resilience mechanisms seem to be less efficient at later stages of BD, especially mitochondrial and endoplasmic reticulum related responses to stress. These insights may help in developing staging models of BD, with a special emphasis on the search for biomarkers associated with illness progression.



GUILHERME V. POLANCZYK

is Assistant Professor of Child and Adolescent Psychiatry at University of São Paulo (USP). He completed the Adult Psychiatry and the Child and Adolescent Psychiatry Programs at Hospital de Clínicas de Porto Alegre, and the MSc and PhD Programs at Universidade Federal do Rio Grande do

Sul. He worked as a post-doctoral researcher at the SGDP Centre Institute of Psychiatry London, and Duke University focused on the developmental origins of mental disorders at the Dunedin and E-Risk Studies. Currently, he directs the Early Diagnosis and Intervention Program at the Institute of Psychiatry, Hospital das Clínicas FM-USP, and the Research Center on Neurodevelopment and Mental Health at USP. His research interests are early presentation and risk factors for later mental disorders, specifically ADHD and disruptive behavior disorders. His work is funded by NARSAD, CNPq and FAPESP and was awarded



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by professional associations. He has more than 60 papers published in peer-reviewed journals, 1400 citations and h-index 18.

CONFERENCE | THE NATIONAL INSTITUTE OF DEVELOPMENTAL PSYCHIATRY FOR CHILDREN AND ADOLESCENTS: WHERE WE ARE, WHERE WE ARE GOING

The National Institute of Developmental Psychiatry for Children and Adolescents (INPD) was created and funded by CNPq and FAPESP to foster the development of research, training and education on childhood mental disorders in Brazil. The Institute is composed of a network of research teams from Brazil, the USA and Europe, and responsible for conducting 16 original projects. Projects are centered on the tenet that childhood mental disorders are the result of deviant neurodevelopmental processes that begin very early in life. Because available treatments have limited effectiveness and do not change the natural course of disorders, more efforts should be directed toward preventive strategies. At the same time, it is imperative to better understand the specific distribution and risk factors for the disorders in our context and to invest in professional training at all levels. This lecture will address the main projects and results obtained so far and discuss future directions for the Institute and more broadly for the field in Brazil.



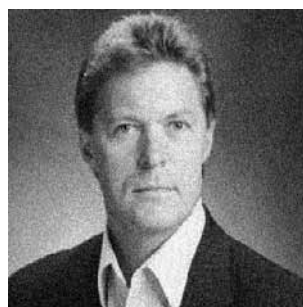
GUSTAVO TURECKI MD PhD is Professor of Psychiatry and Human Genetics at McGill University, Montreal, Canada, where he leads a research and clinical career focusing on depression and suicide. Dr. Turecki obtained his medical degree (1989) and specialty in psychiatry (1994) from UNIFESP, Sao Paulo, Brazil, and a PhD in neurosciences

with concentration in genetics from McGill University, Canada (1999). He currently holds a William Dawson Chair, and is the director of the McGill Group for Suicide Studies, the Quebec Suicide Brain Bank, and the FRSQ-funded Quebec Suicide Research Network. In addition, he is the Vice-Chair of Research and Academic Affairs of the Department of Psychiatry at McGill University. Dr. Turecki's research has focused on the study of biomedical risk factors for suicide and depression. He has made important contributions to our understanding of the suicide phenotype, conducting multidisciplinary studies on suicide, integrating biomedical, clinical and psychosocial information. More recently, his work has focused on epigenetic mechanisms, and has conducted pioneering research leading to our understanding of how early-life adversity stably impacts the genome and increases long-term risk for suicide. Dr. Turecki has authored over 250 publications, including book chapters and research articles in peer reviewed journals such as *Nature Neuroscience*, *Molecular Psychiatry*, *Archives of General Psychiatry*, among others, and is the recipient of several scientific awards, including the NARSAD Michael Kaplan Investigator Award, the American Foundation for Suicide Prevention Distinguished Investigator Award and their 2012 Career Science Award, as well as the Radio-Canada Researcher of the Year in 2010. He also serves, or has served, in the advisory boards of several scientific journals.

In addition to a busy scientific career, Dr. Turecki is an engaged clinician. He heads the Depressive Disorders Program at the Douglas Mental Health University Institute, where he treats patients with refractory major depressive disorder. On a personal note, Gustavo is married and has 3 teenage sons. When he is not working, he can be found driving his sons to hockey practice and games, and whenever he has a bit of time for himself, he can be found in the woods feeding his second passion – mycology.

CONFERENCE | THE EARLY LIFE ENVIRONMENT: ADVERSITY, GENOMIC PLASTICITY AND PSYCHOPATHOLOGY

The environment in which we live, and especially the early life environment, shapes our behavior. Adversity during early life is strongly associated with problems in behavioral regulation and psychopathology in adulthood. Until recently, the mechanisms responsible for behavioral changes induced by early life adversity were not clear. However, recent evidence suggests that early-life environment induces behavioral changes through epigenetic mechanisms controlling the expression of genes involved in the regulation of behavior. As such, the epigenome mediates the effects of environmental variability on behavioral, physiological and pathological responses. In this talk, I will present data from genome-wide methylation studies in human postmortem brain tissue as a function of history of environmental adversity. Implications for behavioral development and risk of psychopathology will be considered.



HAKON HAKONARSON, M.D., Ph.D., is an Associate professor of Pediatrics at The University of Pennsylvania School of Medicine. He's a physician-scientist and Director of The Children's Hospital of Philadelphia's Center for Applied Genomics (CAG), a high-throughput highly automated genotyping facility founded to identify

the genetic causes of complex medical disorders in children, such as autism and cancer, with the objective of developing new therapies. The Center represents a \$40 million commitment from CHOP to genotype approximately 100,000 children a research undertaking that has gained nationwide attention, including news features in the *Wall Street Journal*, *New York Times*, *Time Magazine*, *Nature* and *Science*. Dr. Hakonarson has an extensive track record in human genetics and has developed an international reputation amongst his peers. He has served previously in several senior posts in the biopharmaceutical industry, including as the director of Inflammatory and Pharmacogenomics Research and the vice president of Clinical Sciences and Development and CSO. Dr. Hakonarson has also been the principal and co-principal investigator on several NIH-sponsored grants, and has published numerous high-impact papers on genomic discoveries and their translations in some of the most prestigious scientific medical journals, including *Nature*, *Nature Genetics* and *The New England Journal of Medicine*. *Time Magazine* listed Dr. Hakonarson's autism gene discovery reported in *Nature*, 2009, among the top 10 medical breakthroughs of that year. With over ten years of experience in pioneering genomics research and genome-wide mapping and association studies, Dr.



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Hakonarson has intimate knowledge of the complexities of large-scale genomics projects and has put together the necessary infrastructure and workflow processes to unravel these complexities.

CONFERENCE | GENOME-WIDE ASSOCIATION STUDIES FOR PSYCHIATRIC DISORDERS

The Center for Applied Genomics at CHOP is focused on developing innovative genomics-based approaches to identify subpopulations of patients who share genetic substructure predicted to respond to specific therapies (test-and-treat paradigm to personalize management) of neuropsychiatric disorders. The Center was founded in 2006 to establish a pediatric biobank at CHOP, currently the largest of its kind in the world. The scientific and conceptual underpinnings of the center are based on findings with the vision to rapidly discover successful therapeutic alternatives to personalize treatment of neuropsychiatric disorders in a fast and cost-effective manner. The initial focus on attention deficit-hyperactivity disorder (ADHD), the most common psychiatric pediatric disorder characterized by inattention, hyperactivity, impulsivity, and executive function defects has resulted in a unique therapeutic development program moving forward. In the U.S., 15.6 million people are estimated to suffer from ADHD. Adolescents and young adults afflicted with ADHD are much more likely to have severe problems both in school and at work, and by age 25. Using state-of-the-art genomics, CAG has identified a distinct subset of ADHD patients that are suitable for targeted therapy with our lead candidate drug, NFT-1101. NFT-1101 is a first-in-class drug using a personalized approach for ADHD and we have extended the genomics-based target discovery process and found that the neuro-receptor pathway targeted by NFT-1101 could also be therapeutic for a subset of patients with other neurodevelopmental/psychiatric disorders, including autism and schizophrenia. Thus, successful development of NFT-1101 for ADHD will be an impetus to develop it for use for other indications. The CAG has made significant strides in identifying multiple biological pathways that are potential therapeutic targets for neurodevelopment/psychiatric disorders, some of which can be modulated by existing therapeutics that were originally designed for other indications. This work will be presented in the context of integrative academic program development.



HELEN HERRMAN is Professor of Psychiatry at Orygen Youth Health Research Centre and the Centre for Youth Mental Health, The University of Melbourne, and Director of the World Health Organization (WHO) Collaborating Centre for Mental Health in Melbourne. She is a National Health and Medical Research Council

(Australia) Practitioner Fellow, and Honorary Fellow of the World Psychiatric Association (WPA), having served as WPA Secretary for Publications from 2005 to 2011. In her role as WPA officer, she convened a taskforce that recommended international best practices in working with service users and family carers. She is President-Elect of the Pacific Rim College of Psychiatrists. She led a global project for WHO in collaboration with the Victorian Health Promotion Foundation and the University of Melbourne on the evidence for mental health

promotion, and editing of the report & book published in 2005: 'Promoting Mental Health: Concepts, Evidence and Practice'. She is currently Chair of the Global Consortium for the Advancement of Promotion and Prevention in Mental Health. From 1992 to 2005, she was Professor and Director of Psychiatry in St Vincent's Health Melbourne and The University of Melbourne, and led development of an integrated hospital and community mental health service in inner Melbourne under Australia's national reform of mental health care. In 2001-2002 she was acting regional adviser in mental health for the WHO's Western Pacific Region. She is currently involved in research programs on youth, technology and wellbeing, on violence, gender and mental health, on depression in primary health care, and on improving mental health for young people in out of home care.

CONFERENCE | PROMOTING THE MENTAL HEALTH OF YOUNG PEOPLE: PREVENTION, MENTAL HEALTH PROMOTION AND EARLY INTERVENTION

The age group 12-25 years is the peak time of onset for many mental disorders including mood, substance abuse and psychotic disorders. It is also a period of high prevalence of mental health problems. Yet in most countries there are few opportunities for young people and their families to gain access to treatment and care for mental ill-health and preventive interventions. Few countries give sufficient attention to supporting the mental health of young people and few have developed policies and programs to support this. This is especially important for young people exposed to trauma and adversity. Effective interventions in primary or specialist care are likely to be most cost-effective at this age; and opportunities exist to introduce evidence-based programs and policies promoting mental health in young people. Policy and practice changes suitable for each country have two essential starting points: improved understanding of youth mental health within communities; and involving young people and their families in decisions that affect them. New approaches to improving mental health of young people are being developed in several countries. Information technology is now used to assist care, and the internet is a setting for mental health promotion. These features of modern community and service development may be applied in many environments.



JAIR DE JESUS MARI took his medical degree in the Santo Andre ABC Medical Faculty in 1977 and completed his residency training in psychiatry at the Civil Servant State Hospital of São Paulo in 1979. In 1986 he concluded his Ph.D. in the Institute of Psychiatry, Kings College, London. In 1987, he became a tenure affiliated professor in

the Department of Psychiatry, Federal University of São Paulo. In 1991 he spent one year at the McMaster University, Canada, as a post-doc, to study clinical epidemiology. He became full tenure professor in the Department of Psychiatry, at the Federal University of São Paulo in 1996. Since his stay in London he has published more than 200 scientific papers and supervised several post-graduation students. He is a top level researcher from the National Research Brazilian Council (CNPq) with studies in the areas of Psychiatric Epidemiology,



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Systematic Reviews, Sociocultural Issues on the Course of Schizophrenia, Health Services Evaluation, Violence and Mental Health and Prevention of Psychiatric Disorders. He was one of the editors of the Brazilian Journal of Psychiatry (RBP Psychiatry) from 1998 to 2008. Nowadays he is the head of the post-graduation program of the Department of Psychiatry of the Federal University of São Paulo, and Honorary Visiting Professor, in the Health Services and Population Research Department, Institute of Psychiatry, King's College, London.

CONFERENCE | THE Y-MIND SÃO PAULO SCHOOL OF ADVANCED SCIENCE FOR PREVENTION OF MENTAL DISORDERS

The aged 10–24 years population is near 1.8 billion people, and 90% live in Low and Middle Income Countries. Neuropsychiatric disorders, which have largely been overlooked in public health, are the leading cause of disability in young people in every region of the planet. The leading global burden of diseases as measured by the Dalys in the age group 10–24 years are mostly related to mental health: Unipolar depressive disorders (8.2%), Road traffic accidents (5.4%), Schizophrenia (4.1%), Bipolar disorder (3.8%), Violence (3.5%), Alcohol Abuse (3.0%), HIV/AIDS (3.0%), and self-inflicted injuries (2.8%). Around 75% of people with a Mental, Emotional and Behavioral (MEB) disorder had an age of onset younger than 24 years. A truism that remains neglected is that psychiatry needs to follow general medicine and focus in preventive strategies to avert MEB disorders. Research on prevention is a major priority in the field, but several challenges have to be tackled to reach prevention of MEB. The Y-Mind São Paulo School of Advanced Science for Prevention of Mental Disorders is an initiative of Brazilian Academics funded by the State of São Paulo Research Funding Agency (Fapesp) to bring together students and faculty associates to discuss cutting edge projects in the area of prevention of MEB from a global perspective. To accomplish these objectives, the Y-Mind School will focus its activities in the following areas: a) Epidemiology and Risk Factors for MEB; b) Translational research; c) Neurobiology, Neurodevelopment and Brain Circuits of Early stages of MEB disorders; d) Effective Interventions to prevent MEB; and e) Services, Stigma & Awareness. The Y-Mind School aims to integrate high standard clinical and scientific teams to constitute a global network that will impact the field of MEB prevention both in terms of its wide scope and of its multistage approaches to preventive mental health.



JIM VAN OS is Professor of Psychiatric Epidemiology and Chairman of the Department of Psychiatry and Psychology at Maastricht University Medical Centre, Maastricht, The Netherlands, and Visiting Professor of Psychiatric Epidemiology at the Institute of Psychiatry, London, UK. He trained in Psychiatry in Casablanca

(Morocco), Bordeaux (France) and finally at the Institute of Psychiatry and the Maudsley/Bethlem Royal Hospital in London (UK) and after his clinical training was awarded a three-year UK Medical Research Council Training Fellowship in Clinical Epidemiology at the London School of Hygiene and Tropical Medicine. In 1995, he moved to Maastricht University Medical Centre. He is on the

editorial board of several European and US psychiatric journals such as *Acta Psychiatrica Scandinavica*, *European Psychiatry*, *Psychological Medicine*, *Schizophrenia Research*, *Schizophrenia Bulletin*, *Early Intervention in Psychiatry*, *Epidemiology and Psychiatric Sciences*, *Psychosis Journal*, *The Journal of Mental Health and the Sciences*. He is also an Academic Editor at PLoS ONE.

Jim van Os is coordinator of a €12M EU FP7 IP project on gene-environment interactions in schizophrenia, and is also active in clinical gene-environment interaction research in depression and bipolar disorder. He is a member of the Psychosis Group of the DSM-V Task Force, and was co-chair of the APA DSM/ICD conference Deconstructing Psychosis. In 2011, he was elected member of the Royal Netherlands Academy of Arts and Sciences (KNAW). He is Director of Psychiatric Services at Maastricht University Medical Centre and runs a service for treatment-resistant depression and first episode psychosis.

Contribution to brain research

Prof. van Os has strived to contribute to the area of brain-mind interface in a non-reductionist fashion, focusing on the distribution of mental states in the population as related to mental ill-health, and the gene-environment interactions underlying these. He has developed and validated the theory that expression of mental ill-health can be traced to variation in normal mentation, establishing experiential and aetiological links between normal and pathological mental states. In his recent paper in *Nature* (2010), he has argued that contextual neuroscience, focusing on the constant interactions between person and context, is the most appropriate way to conduct science in order to find solutions for patients with mental disorders. His current areas of interest include the clinical, cognitive and genetic epidemiology of bipolar disorder, schizophrenia and depression, in particular the study of variation in overlapping dimensions of these disorders in the general population and the underlying cognitive factors and gene-environment interactions driving this variation. Treatment studies focus on novel mobile health (M-Health) applications in the early treatment of mental disorders, novel diagnostic paradigms based on Experience Sampling mental state circuitries, implementation of Assertive Outreach and CBT in routine mental health settings, and aspects of patient-professional carer communication. Bibliographic indices: Hirsch factor (Web of Science): 66; PubMed peer-reviewed publications: 556; PhD Theses directed by Prof. van Os at Maastricht University: 42

Recent publications:

- van Os, J. & Kapur, S. (2009) Schizophrenia. *Lancet*, 374, 635–645.
- van Os, J., Kenis, G. & Rutten, B. (2010) The Environment and Schizophrenia. *Nature*, 468, 203–212.
- van Os, J. (2009) 'Salience syndrome' replaces 'schizophrenia' in DSM-V and ICD-11: psychiatry's evidence-based entry into the 21st century? *Acta Psychiatrica Scandinavica*, 120, 363–372.
- van Os, J., Linscott, R.J., Myin-Germeys, I., Delespaul, P. & Krabbendam, L. (2009) A systematic review and meta-analysis of the psychosis continuum: evidence for a psychosis proneness-persistence-impairment model of psychotic disorder. *Psychological Medicine*, 39, 179–195.

CONFERENCE | THE ONTOGENESIS OF PSYCHOSIS



CONFERENCES OF THE Y-MIND SAO PAULO SCHOOL OF ADVANCED SCIENCE FOR PREVENTION OF MENTAL DISORDERS

IN THE GENERAL POPULATION: PERSPECTIVES OF DIAGNOSIS, TREATMENT AND PREVENTION

The human brain has evolved as a highly context-sensitive system, enabling behavioural flexibility in the face of constantly changing environmental challenges. Bottom-up sensory stimuli interact with top-down cortical expectations, giving rise to affectively meaningful representations of the social world that motivate adaptive, goal-directed interactions. Multidimensional psychotic syndromes can be understood as an imbalance in the cycle of adaptation to the social context. At the symptom level, paranoid delusions express alterations in experience of the social environment, and cognitive impairments associated with psychotic disorder reflect difficulties in the ability to read the emotions and intentions of other people, contributing to the reduced social competence that accompanies symptoms. At the aetiological level, robust evidence exists that onset of psychotic disorder is associated with early life adversity, growing up in an urban environment, minority ethnic group and cannabis use. Together, these observations suggest a mechanism of exposures impacting on the developing “social” brain during sensitive periods. In addition, there is evidence for significant “mental causation” of syndromes, in that mental experiences have causal impacts on each other, resulting in person-specific chains of events from which psychopathology arises. It is proposed to conduct longitudinal research on gene-environment-mental interplay driving variation in behavioural expressions of liability in the general population that subsequently may give rise to more severe and more ‘co-morbid’ expressions of psychopathology and need for care; to develop technology to directly assess situated phenotypes indexing dynamic, within-person environmental and mental reactivity as substrate for molecular genetic studies and diagnostic systems; and to increase the translational potential to study developmental social-reactive mechanisms associated with psychotic disorder.



JOHN A. RONNING, professor dr. philos and specialist in clinical child psychology at the University of Tromsø and University Hospital of North Norway, graduated from the University of Bergen in 1980, where-upon he worked as a NRC research fellow and later associate professor. From 1986 to 1989 he served as a senior lecturer and

participated in the development of a regional college (all countries in Southern Africa) for specialist teachers of the handicapped in Lusaka Zambia. In 1989 to 1980 he planned the first Regional Centre for Child & Adolescent Psychiatry in Norway and headed the development of this institution for the first 10 years. One of his favourite professional areas has always been child development and early intervention, and in 1997 he initiated and headed the development of the premature project in Tromsø. Presently he is involved in and/or heading several research project both nationally and internationally, the latest being the NRC funded project “Child Rights and Violence in Brazil”. He has published more than 80 scientific papers.

CONFERENCE | EARLY INTERVENTION IMPROVES COGNITIVE AND BEHAVIORAL DEVELOPMENT OF CHILDREN BORN PREMATURELY

Children born prematurely are at significant risk of delayed cognitive development and of suffering behavioural, emotional and social problems. One reason for this may be that the behaviour of these infants is less clear and consistent than their full-term counterparts. This may disturb the developmental transactions that take place between infant and parents and thus lead to poorer development. To test this hypothesis we embarked on a randomized clinical trial (n~140) in which ~ 70 pairs of parents were trained in hospital (7 hrs) and at home (4 hrs) to read their premature (<2000grams) infants' behavioural cues and to react appropriately to these. A similarly sized reference group of infants born at term was also recruited. All families were subsequently followed at six months and at 1,2,3,5, 7 and 9 years with various medical, cognitive and psycho-social assessments from independent sources (mother, father, teacher, child), and blinded assessors. In all the assessments the participation rate was >90%. Positive results regarding parental stress have been documented from birth through age 3, more nurturant child-rearing attitudes and significantly better infant early social communication skills at one year, and improved behavioural and cognitive development at age five. Only three studies have followed early intervention effects up to age five, and only two of these further on.



JOSÉ ALEXANDRE S CRIPPA,
MD, PhD

CONFERENCE | THE USE OF CANNABIDIOL, A CANNABIS SATIVA CONSTITUENT, IN NEUROPSYCHIATRY

Cannabidiol (CBD), one of the main compounds of cannabis sativa plant

was isolated from marijuana extract in 1940, but only in 1963 its exact chemical structure was elucidated by Mechoulam and Shvo. The few pharmacological studies on CBD reported before the early 1970's, showed that CBD was unable to mimic the effects of Cannabis plant leading to the thought that it was an inactive cannabinoid. Therefore, during this period CBD received much less attention than delta-9-THC. This thought began to change with the observation that the activity in animals of several samples of Cannabis differed widely, a fact which could not be attributed only to the different delta-9-THC contents of the samples. It was then hypothesized that other cannabinoids, among them CBD, could be interfering with the delta-9-THC effects. The number of publications on Cannabis increased in 1970's and then remained stabilized until the early 1990's when it has increased considerably. Nevertheless, although the number of publications about Cannabis in general and delta-9-THC in particular, has been continuously growing, the reports on CBD remained stable until the early 2000's. However, this scenario has changed in the last few years with an explosive increase in publications on CBD — some contributions from our group — with the confirmation of a plethora of pharmacological effects, many of them with therapeutic potential. More recently, we have expanded our previous contributions now with emphasis on pharmacological advances,



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as well as on novel mechanisms by mean with neuroimaging methodologies. We have demonstrated anxiolytic properties of CBD by several pre-clinical studies that employed different paradigms. Although these previous studies have shown that CBD possess anxiolytic properties, it has not been tested in pathological anxiety so far. Therefore, we recently investigate this in ten patients with Social Anxiety Disorder (SAD) using SPECT and in the simulated public speaking test paradigm. Since the early 1980's, the antipsychotic-like properties of CBD have been suggested both in animals and humans. Recently, with the results of a study with 10 healthy volunteers using ketamine-induced psychotic symptoms model and open case reports of schizophrenic patients treated with CBD we further supported the proposal of the antipsychotic-like properties of this cannabinoid. A possible therapeutic effect of CBD on movement disorders came from preliminary anecdotal reports of open trials, in the middle 1980's. Afterwards, this field of research was apparently abandoned until recently, when CBD's neuroprotective effects began to be reported in animal models of Parkinson's disease (PD). In a recent study, we also observed that CBD can increase BDNF levels in some brain regions, thus reversing and preventing in an animal model the oxidative stress effects of chronic use of the indirect dopaminergic agonist d-amphetamine. It is well-known that psychosis in PD is great challenge for clinicians' management of and the need for new pharmacological intervention in such condition. Therefore, based in the previous antipsychotic and neuroprotective effects of CBD, we directly evaluated for the first time, the efficacy, tolerability and safety of CBD on PD patients with psychotic symptoms. In an open-label pilot study, six consecutive outpatients with the diagnosis of PD and who had psychosis for at least 3 months were included. They received CBD in flexible dose for 4 weeks, in addition to their usual therapy. The psychotic symptoms showed a significant decrease under and CBD treatment and decreased the total scores of the Unified Parkinson's Disease Rating Scale. These preliminary data suggest that CBD may be effective, safe and well tolerated for the treatment of the psychosis in PD. We are now running a randomized double-blind controlled assay of such cannabinoid on cognitive, motor, and psychiatric symptoms of PD. Due to its wide spectrum of action, CBD was tested on epilepsy, panic disorder, post-traumatic stress disorder, other psychosis, sepsis, neuroprotection, tumors, sleep disorders, among other conditions. CBD may be of great therapeutic interest to neuropsychiatry; however, further controlled trials are necessary to confirm the existing findings and to establish the safety of such compounds.



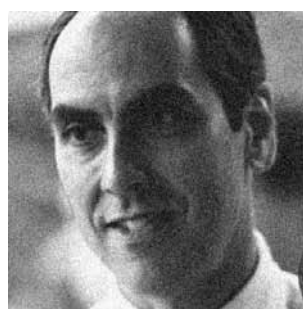
LUIS A ROHDE is Professor of Psychiatry in the Department of Psychiatry at the Federal University of Rio Grande do Sul, Brazil, Director of the Program for Attention-Deficit/Hyperactivity Disorder at the Hospital de Clinicas de Porto Alegre, and Vice-Coordinator of the National Institute of Developmental Psychiatry, Brazil. He is

currently Associate Editor of the Attention Deficit and Hyperactivity Disorder, Co-Editor of the European Child and Adolescent Psychiatry, and International Editor of the J Am Acad Child and Adolescent Psychiatry. He is President of the World Federation of ADHD, Vice-President of the International Association of

Child and Adolescent Psychiatry and Allied Professions and member of the DSM-5 workgroup for ADHD and Disruptive Behavior Disorders. Dr. Rohde's research interests include ADHD epidemiology, genetics, pharmacogenetics, neuroimaging, and the effects of pharmacological and psychosocial treatments for ADHD. He has published extensively in peer review international and national journals (more than 170 papers), and has been an author or co-author in over 40 book chapters/books and editorials. He has 2365 citations and an H index = 24 in the Web of Science.

CONFERENCE | NEUROBIOLOGICAL EVIDENCES FOR ADHD AS A NEURODEVELOPMENTAL DISORDER

Attention-Deficit/Hyperactivity Disorder (ADHD) is one of the most prevalent neurobiological disorders affecting individuals across the life-cycle. In this presentation, we first review some new epidemiological data from our lab addressing two clinically relevant questions: Are there evidences for an increase in ADHD prevalence in children and adolescents? What is the impact of the new DSM-5 definition of ADHD in the prevalence of the disorder in adults? For the first question, the evidence from a recent systematic review and meta-regression conducted by our group will be discussed. To address the second question, we will present data from the 1993 Pelotas Birth Cohort where the diagnosis of ADHD according to the DSM-5 criteria was assessed. Next, we will present data from our and other labs suggesting that ADHD is as a neurodevelopmental disorder based both on recent findings linking the disorder with genes involved in neurodevelopment and on neuroimaging data documenting different brain trajectories and modifications in resting state (default-mode network) connectivity comparing subjects with ADHD and those with typical development. Finally, we will discuss next steps in the field to increase characterization of ADHD as a neurodevelopmental disorder based on projects under development both in the National Institute of Developmental Psychiatry for children and adolescents and the 1993 Pelotas Birth Cohort. Specifically, we will present the conceptualization of two projects: a) the first trying to determine genetic and neuroimaging data predicting the trajectory from an at risk condition to a full ADHD diagnosis in children; b) the second searching for neurobiological data differentiating individuals in early adolescence with family and/or phenotypic characteristics associated with remission of ADHD in early adulthood from those with typical development and ADHD in early adolescence.



MARCELO F MELLO is associate professor of clinical psychiatry at Federal University of Sao Paulo, graduated from the Santa Casa Medical School (SP-Brazil) in 1984, where-upon he worked as a associate professor till 1998. His expertise is in diagnosis, pharmacologic treatment, and neurobiology of Post-traumatic Stress

Disorder and Major Depression with an emphasis on suicidal behavior. He has received an award as Social entrepreneur of future, from Schwab Foundation and Folha de Sao Paulo Group (2010), and from Associação Brasileira de Psiquiatria (1996). Dr. Mello is principal investigator in three studies funded by



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the State of São Paulo Funding Agency (FAPESP): a) Interpersonal Therapy Triage format depression in children; b) The impact of violence on pre-pubertal children: Clinical and biological factors; and c) Four year follow-up of a cohort with PTSD. Dr. Mello coordinated training for health professionals to detect and treat psychiatric disorders related to violence on war zone, in an association with the international red cross, in regions as Rio de Janeiro Slums, extreme violent neighborhoods in S. Paulo, and in Congo borders. He has authored or co-authored over 90 peer-reviewed articles.

CONFERENCE | EARLY BONDING AND SOMATIC MARKERS: CONTRIBUTIONS TO NEUROBIOLOGY OF ATTACHMENT

The aim of this conference was to examine the relationship between childhood maltreatment and PTSD development during adult life. Through a review of the relevant literature was possible to identify key and illustrative research findings, which showed that there is now a substantial body of preclinical and clinical evidence, derived from a variety of experimental paradigms, showing how early-life stress is related to many neurobiological dysfunctions which will disrupt psychological functioning, which in their turn would be related to development of high risk to PTSD during adulthood. Risk for adult PTSD and early life stress is related to a complex interaction of multiple experiential factors, as well as to susceptibility genes that interact with those factors. Adaptive systems for human social environment need a long-term maturation and are highly dependent of early experiences initially with child's mother and further with peers. The author will discuss hypothesis that could be linked to adaptive systems malfunctioning based on neurobiological findings. Research to date has identified multiple determinants of psychiatric disorders development in adults with a history of childhood maltreatment or other early-life stress. The author proposed hypothesis that could be testable empirically creating a field for future research.



MARIA A. OQUENDO, M.D. is Professor of Clinical Psychiatry and Vice-Chair for Education in Psychiatry at Columbia University and the New York State Psychiatric Institute. Her expertise is in diagnosis, pharmacologic treatment, and neurobiology of Bipolar Disorder and Major Depression with an emphasis

on suicidal behavior. She has received many awards including the Simon Bolivar Award from the APA (2010) and has twice received the Exemplary Psychiatrist Award from the National Alliance for the Mentally Ill. She was named Honorary Professor, Universidad Peruana Cayetano Heredia, Lima, Peru (2011). Dr. Oquendo is principal investigator on a NIMH study of suicidal behavior in affective disorders and an R25 supporting translational research training in the residency training program. She was recently awarded a T32 grant to implement a research fellowship program in Global Mental Health. She has authored or co-authored over 220 peer-reviewed articles

CONFERENCE | ESTIMATING RISK FOR SUICIDE ATTEMPT AND DEVELOPMENT OF PREVENTION STRATEGIES

Psychopathological, genetic, familial, behavioral and cognitive factors contribute to risk for suicide attempt. As well, suicidal behavior has a well-defined neurobiology, apart from that associated with psychiatric conditions in which suicidal behavior is observed. Some of the neurobiological abnormalities are related to stress response dysfunction, neuroinflammation and changes in polyunsaturated fatty acids ratios, in addition to changes in neuronal serotonergic function. Understanding predisposing characteristics can assist in the identification of high risk individuals. However, determining the exact timing of suicidal behavior remains an elusive goal. Major prevention strategies can be classified as primary or universal, secondary or targeting high risk populations or tertiary, focused on mitigating untoward effects of suicidal acts. Educational approaches for populations or screening in schools are examples of primary prevention strategies. Aggressive management of psychiatric conditions associated with suicidal behavior such as mood disorders and psychoses are secondary prevention strategies that can effectively decrease risk. Prevention of recurrence of suicidal behavior using safety planning and other interventions specific to suicidal behavior are tertiary measures that are being tested for efficacy in the stemming of suicidal behavior in those who have already engaged in suicidal acts or in those who are at chronic risk for suicidal behavior.



MYRNA WEISSMAN is a Professor of Epidemiology in Psychiatry, College of Physicians and Surgeons and the Mailman School of Public Health at Columbia University and Chief of the Division of Epidemiology at New York State Psychiatric Institute (NYSPI). Until 1987, she was a Professor of Psychiatry and Epidemiology at Yale

University School of Medicine and Director of the Depression Research Unit. She received a Ph.D. in epidemiology from Yale University School of Medicine in 1974. Her research is on understanding the rates and risks of mood and anxiety disorders using methods of epidemiology, genetics, neuroimaging, and the application of these findings to develop and test empirically based treatments and preventive intervention. Her current Interest is in bringing psychiatric epidemiology closer to translational studies in the neurosciences and genetics. She directs a 3-generation study of families at high and low risk for depression who have been studied clinically for over 25 years and who are participating in genetic and imaging studies. She directs a multi-center study to determine the impact of maternal remission from depression on offspring. She is one of the PIs in a multi-centered study to find biomarkers of response to the treatment of depression. She was one of the developers of Interpersonal Psychotherapy, an evidenced-based treatment for depression. Dr. Weissman is a member of the Institute of Medicine, National Academy of Science. She has been the author or a co-author of over 600 scientific articles and chapters, and 11 books and the recipient of numerous grants. In April 2009, she was selected by the American College of Epidemiology as 1 of 10 epidemiologists in the United States who has had a major impact on public policy and public health. The summary of her



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work on depression appears in a special issue of the Annals of Epidemiology, Triumphs in Epidemiology.

CONFERENCE | TRANSLATIONAL EPIDEMIOLOGY IN PSYCHIATRY: LINKING POPULATION TO CLINICAL AND BASIC SCIENCES

Translational research generally refers to the application of knowledge generated by advances in basic sciences research translated into new approaches for diagnosis, prevention, and treatment of disease. This direction is called bench-to-bedside. Psychiatry has similarly emphasized the basic sciences as the starting point of translational research. The term translational epidemiology for psychiatry research can also be bidirectional in which the knowledge generated from the bedside or the population can also be translated to the benches of laboratory science. Epidemiologic studies are primarily observational but can generate representative samples, novel designs, and hypotheses that can be translated into more tractable experimental approaches in the clinical and basic sciences. This bedside to-bench concept has not been explicated in psychiatry, although there are an increasing number of examples in the research literature. This lecture describes selected epidemiologic designs, providing examples and opportunities for translational research from community surveys and prospective, birth cohort, and family-based designs. Rapid developments in informatics, emphases on large sample collection for genetic and biomarker studies, and interest in personalized medicine — which requires information on relative and absolute risk factors—make this topic timely. The approach described has implications for providing fresh metaphors to communicate complex issues in interdisciplinary collaborations and for training in epidemiology and other sciences in psychiatry.

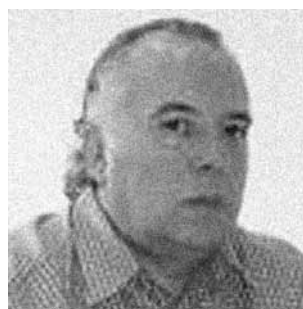


RICARDO ARAYA, has been involved in mental and primary health care research for almost three decades with projects in Chile, Brazil, Peru, Colombia, Lebanon, India, Nigeria, Zimbabwe, and United Kingdom. I have received grants in open competition from the European Union, US National Institute of Mental Health,

Wellcome Trust, UK Medical Research Council, UK National Institute of Health Research as well as other funding institutions. I have conducted several large randomized controlled trials as well as large epidemiological surveys in diverse countries and settings. Most importantly I have a long history of successful research and training collaboration with people across all continents. I have nearly 200 scientific publications including 8 papers in Lancet. I am a co-founder member of the Global Mental Health Movement and member of the Global Health Trials Committee convened by the Wellcome Trust and the Medical Research Council in the UK. I have participated in several capacity building exercises in other countries. I have advised governments and worked at the Ministry of Health in Chile holding high-responsibility posts. I lead as a Co-PI (with Professor Paulo Menezes from USP) a Mental Health Hub in Latin America focusing on the integration of management of chronic diseases.

CONFERENCE | SCHOOL INTERVENTIONS AND MENTAL HEALTH IN ADOLESCENTS

Depression can have devastating effects unless prevented or treated early and effectively. Schools offer an excellent opportunity to intervene with adolescents presenting emotional problems. A two-arm, cluster RCT was used to test the effectiveness of a school-based intervention to reduce emotional symptoms among low-income secondary school students in Santiago, Chile. 2,512 secondary school students from 22 schools and 66 classes participated. Students in the intervention arm attended 11 one-hour weekly and two booster classroom sessions of an intervention based on cognitive-behavioral models. The intervention was delivered by trained non-specialists. Schools in the control arm received the standard school curriculum. The self-administered BDI-II at 3 and 12 months after completing the intervention was the main outcome measure. Primary outcome data were available for 82% of participants. There was no evidence of any clinically important difference in mean depression scores between the groups [-0.19 (95% Confidence Intervals: -1.22 to 0.84)] or indeed for any of the other outcomes at three months after completing the intervention. No differences were found in any of the outcomes at 12 months. The UK study compared the effectiveness of classroom based cognitive behavioural therapy with attention control and usual school provision for adolescents at high risk of depression. This 3-arm cluster RCT took place in 8 UK secondary schools, involving 5,030 adolescents aged 12-16 years. The groups received either CBT, attention control, and usual school provision. The primary outcome was symptoms of depression assessed at 12 months by the SMFQ among those identified at baseline as being at high risk of depression. 1064 (21.2%) adolescents were identified at high risk of depression. At 12 months adjusted mean scores on the SMFQ did not differ for cognitive behavioural therapy versus attention control (-0.63 , 95% confidence interval -1.85 to 0.58 , $P=0.41$) or for cognitive behavioural therapy versus usual school provision (0.97 , -0.20 to 2.15 , $P=0.12$). There is growing evidence that universal school interventions may not be sufficiently effective to reduce or prevent depressive symptoms.



RONALDO LARANJEIRA, M.D., Ph.D., is a full professor at Federal University of São Paulo (UNIFESP), Director of the Alcohol and Drugs Research Unit — UNIAD from February 1995. Visiting Professor in the Department of Psychiatry from the Federal University of São Paulo, from 1996 to 2002. Consultant of the World Health Organization from April 1996. Tenure Professor in the Department of Psychiatry from May 2002. Consultant of the United Nations Office on Drug and Crime from September 2007. Full Professor in the Department of Psychiatry in the Federal University of São Paulo, from June 2008. Head of the Program of Clinical Psychiatry in the Department of Psychiatry in the Federal University of São Paulo from February 2008. Consultant of the Pan American Health Organization from February 2008. Director of the National Institute of Public Policies on Alcohol and Drugs — INPAD from January 2009. After earning his Ph.D, supervised by Prof. Griffith Edwards at the Addiction Unit of IoP-KCL, he



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established the most important center to combat addictions (UNIAD) in Brazil. His center was responsible for training more than 500 mental health professionals on alcohol and drug addiction. He is the most important academic regarding alcohol and drug policies in the country, participating in TV discussions, radio and newspaper interviews. He is the head of the National Institute of Science and Technology for Alcohol and Drugs Policies (INPAD) which has a major role in the Brazil's drug and alcohol policies.

CONFERENCE | BRAZILIAN NATIONAL ALCOHOL AND DRUGS SURVEY

The Second Brazilian National Alcohol and Drugs Survey (BNADS / LENAD) is a nationally representative repetitive cross-sectional study. It estimated patterns of alcohol, tobacco and illicit substances use. Risk factors for addiction were also assessed. Both surveys were organized by the National Institute of Alcohol and Drug Policy (INPAD) of the Federal University of Sao Paulo (UNIFESP), which is a research organization funded by the Ministry of Science, and conducted by Ipsos Public Affairs. Both surveys used a probability multistage cluster sample designs to select Brazilians 14 years of age and older from the household population of Brazil. In both surveys, face to face interviews of about an hour were carried out by trained interviewers. Sampling methods were identical in each survey. The multistage sample had 4 stages, as follows: counties, within counties census areas, households, and at the last stage a randomly selected respondent within the household. No substitutions were allowed. In 2006, the selected sample was composed of 2,346 interviews with adults aged 18 years and more, plus 661 with respondents between 14 and 17 years of age. In 2012, the survey interviewed 3,295 respondents 18 years of age and older and 908 respondents between 14 and 17 years of age. The response rate in 2006 was 66% and in 2012 it was 77%. The survey's alcohol assessment instrument was a version of the questionnaire used in the Hispanic Americans Baseline Alcohol Survey (HABLAS). The Severity of Dependence Scale (SDS) was used to assess cannabis and cocaine dependence and other 10 scales were used to assess risk factors such as depression, quality of life, physical health, pain, diet, physical activity, adverse early life events, domestic violence, recent negative life events and social support. The questionnaire underwent a process of adaptation to the socio-cultural reality of the Brazilian population. Preliminary results show that there was a small increase in abstinence rates (48% to 50%), but the proportion of respondents drinking once a week or more increased from 42% to 53%. This increase was statistically significant among women (from 27% to 38%). The frequency of binge drinking (5 or more for men, 4 or more for women) increased from 45% to 58% in the population: from 54% to 66% among men, and from 34% to 48% among women. Alcohol abuse decreased among men, from 4.56% in 2006 to 3.25% in 2012, but this decrease was not significant among women (from 0.86% to 0.62%). Alcohol dependence also decreased significantly among men (from 13.6% to 10.5%) and increased slightly among women (from 3.38% to 3.63%). Over 6% of the Brazilian population have tried cannabis at least once in their lives, 3% reported use in the last twelve months. Among adolescents (under 18 years old) the rates were 4% and 3% for lifetime and last year use respectively. Over half of the users (62%) tried the substance before 18 years old. Dependence rates were 37% among last year users and over half of the participants reported daily use. Cocaine lifetime use was reported by 4% of the adult population and 2% among adolescents. Last year's use of cocaine was 2% for adolescents and adults. Smoked cocaine was tried

by 1.4% of the adult population, and 1% used it in the last year. The prevalence for lifetime and last year use of smoked cocaine was 0.2 among adolescents. Nearly half of the users (45%) have tried some form of cocaine before 18 years old. Injected cocaine was experimented by 14% of the users. These data show therefore a mixed and complex picture for trends in alcohol consumption and alcohol use disorders in Brazil. Even though Brazil is not among the main consumers of cannabis in the world, our study showed that Brazil is the second largest cocaine market in the world with regard to the sheer number of users.



RODRIGO BRESSAN, professor at UNIFESP, is the Coordinator of Integrative Neuroscience Lab. After earning his Ph.D in molecular neuroimaging at IoP-KCL, he returned to lead the most prestigious Schizophrenia Research Program (PROESQ) in Brazil. He has funded one of the most productive cutting-edge

clinical neuroscience labs (LiNC) with an interdisciplinary team of internationally trained researchers performing animal and human integrative translational neuroscience research using functional, structural and molecular neuroimaging, genetics, cognition, and neuroplastic, oxidative stress and inflammatory molecules. His group has pioneered studies on children at risk for MD and adolescents in ultra-high risk for psychosis and bipolar disorder. He has implemented anti-stigma strategies with patient protagonism and school mental health awareness. He is an Honorary Professor at the IoP-KCL and is part of the EUGEI – European Networks of National Schizophrenia Networks of Gene-Environment Interactions. Dr. Bressan is a leading and enthusiastic researcher in the new generation of clinical neuroscience.

CONFERENCE | AT RISK MENTAL STATE FOR PSYCHIATRIC DISORDERS

The psychiatric research field is currently walking a long road to enhance the understanding of etiological mechanisms involved in psychiatric disorders with special interest in the neurodevelopmental processes. In the last two decades, several international initiatives have focused on the childhood and early detection of individuals at risk for severe mental disorders, such as schizophrenia and bipolar disorder (BD). This approach has been very prolific with new insights on the transition to psychosis and innovative early interventions to prevent the disorders. Dr Bressan will present the developments of the field and current exciting cohorts with 2,500 6-12 years-old children (early developmental signs in enriched for psychopathology community-based cohorts, INPD), school-based intervention strategies to inform teachers and students about mental health, and an clinical-research approach to Ultra-High Risk for Psychosis and Bipolar Disorder (PRISMA). He coordinates a large multiphase, multimodal and translational platform of investigation of psychosis and BD (PRONEX), which brings together several Brazilian neuroscientists to investigate the neurodevelopmental processes to provide information towards prevention of severe mental disorders.



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STAN KUTCHER MD, FRCPC, FCAHS, Sun Life Financial Chair in Adolescent Mental Health, Dr. Kutcher is an internationally-renowned expert in the area of adolescent mental health and a national and international leader in mental health research, advocacy, training, policy, and services innovation working at the IWK and Dalhousie

University. He currently holds the Sun Life Financial Chair in Adolescent Mental Health where he applies knowledge translation techniques to advance adolescent mental health promotion, education, research and training locally, nationally and internationally. He currently directs the World Health Organization Collaborating Center in Mental Health at Dalhousie and recently ran as the federal Liberal candidate for Halifax. He has served as Department Head of Psychiatry and Associate Dean for International Health at Dalhousie University. Dr. Kutcher has received numerous awards and honors locally, nationally and internationally for his work including: a Best Doctor in Canada; Doctors Nova Scotia Health Promotion Award; Dr. John Savage Memorial Award for outstanding humanitarian contributions to global health; Canadian College of Neuropsychopharmacology Gold Medal; Lifetime Achievement Award of the Canadian Psychiatric Research Foundation. He is a Distinguished Fellow of the Canadian Psychiatric Association and a Fellow of the Canadian Academy of Health Sciences. He has been honored by the Canadian Psychiatric Association with the JM Cleghorn Award for his contribution to mental health research and the Paul Patterson Award for his innovations in psychiatric education. He is and has been a member of numerous boards and national organizations including the Institute of Neuroscience, Mental Health and Addictions of the CIHR; Interhealth Canada; Mental Health Commission of Canada (CYAC committee); the Canadian Society for International Health; the Canadian Coalition for Global Health Research, the Sandbox Project. He is the author of more than 200 scientific papers and the author/co-author of numerous medical textbooks. Locally he contributes to the work of Laing House, Immigrant Services and Integration Services and the Boys and Girls Clubs. . One of his recent projects was leading the development of a national child and youth mental health framework for Canada: Evergreen. Currently his focus is on knowledge translation pertaining to improving youth mental health and mental health care in schools and primary care.

CONFERENCE | INTERNATIONAL SCHOOL MENTAL HEALTH: GLOBAL APPROACHES, GLOBAL CHALLENGES, AND GLOBAL OPPORTUNITIES

School mental health is increasingly being recognized as an important issue with many different components, ranging from mental health promotion to provision of mental health care. In some jurisdictions various interventions are applied, while in other jurisdictions similar or different interventions are found, many of which demand fidelity to specific program use. Application of various interventions may be useful but not necessarily lead to substantive population mental health improvements on their own as they are often not integrated into a comprehensive public health framework addressing youth mental health care needs. A recently described model that links school based mental health beginning with mental health literacy through identification of youth

with mental health problems/mental disorders to mental health care and on-going school based support is being applied in various Canadian settings. This presentation provides an overview of the model (Pathways to Mental Health Care) and some of the field test and early program evaluation data pertaining to its application. The relevance and applicability of the model as an example of a flexible framework not embedded in a fidelity paradigm and its suitability for use in various international settings will be described and discussed.



VANESSA C. ABILIO is a professor at the Department of Pharmacology / Federal University of Sao Paulo since 2006. She coordinates the laboratory of Animal Models in Neuropsychiatric diseases from the Interdisciplinary Laboratory of Clinical Neuroscience (LiNC). Her research is mainly focused in pre-clinical

investigations of schizophrenia. Her group has recently suggested a new animal model to study this disease and is currently evaluating the role of dopamine, endocannabinoid and glutamate systems as well as neuroinflammation in the pathophysiology of schizophrenia and potential new treatment and prevention strategies. She graduated in Biomedicine from Federal University of São Paulo (1995) and got her master's degree (1998) and Ph.D (2003) in Pharmacology at the same University.

CONFERENCE | THE SPONTANEOUSLY HYPERTENSIVE RAT (SHR) STRAIN: HOW ANIMAL MODELS CAN HELP US ADVANCE THE TREATMENT AND PREVENTION OF NEUROPSYCHIATRIC DISEASES

Investigations in individuals at high risk for developing psychiatric disorders are essential, but they have methodological and ethical limitations that make the use of animal models a powerful tool. We have recently suggested the SHR strain as a new animal model of schizophrenia with good face, predictive and construct validities. Currently, this animal model has been used to investigate the pathophysiology of schizophrenia and, importantly, to evaluate new preventive and therapeutical approaches. In this sense, data will be presented to illustrate how the use of good animal models can advance our knowledge about the neurobiology of the disease and propose innovative treatment and preventive strategies.



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YANKI YAZGAN, M.D. received his child and adolescent psychiatry training (1995) at the Yale Child Study Center of Yale School of Medicine where he also completed a research training track in early onset neuropsychiatric disorders. Dr Yazgan has taught and conducted research at the Marmara University School of

Medicine (as a full professor since 2001) in Istanbul. He also holds a clinical appointment at the Yale Child Study Center. In addition to his academic/medical career, Dr Yazgan speaks to and writes for professionally diverse audiences on everyday applications of cognitive neuroscience findings and his clinical experience as a psychiatrist, for the purpose of public understanding of science. www.yankiyazgan.com

CONFERENCE | PREVENTIVE DEVELOPMENTAL APPROACHES FROM TURKEY: INCREASING FATHER INVOLVEMENT, SCHOOL BASED PREVENTION AND PUBLIC AWARENESS

Preventive work in child and adolescent mental health includes strengthening families, building resilience and creating supportive contexts such as schools for children's development and well-being. Parents are the first line partners in preventive mental health since young children's immediate environments play a crucial role by fostering their ability to achieve their developmental potential. After the first a few years, teachers and educational system, as well as the social environment all play key roles. Early childhood development (ECD) parenting education programs are interventions that train and support caregivers of young children to improve parental skills (e.g., parenting knowledge, attitudes and beliefs, parental practices) and parent and child relationships. Since schools are involved in care for children we must aim to integrate efforts from the family and the school emphasizing the function of teachers who when trained and empowered, enhance their roles in order to take responsibility for children's psychological relief and prevention. Fragile contexts such as disadvantaged geographical regions are the places where research has demonstrated that some of the poor psychosocial outcomes common among young children can be minimized through participation in ECD intervention programs. School based teacher mediated preventive interventions in disaster affected areas have been effective in reducing and preventing psychosocial morbidity I will talk about examples from two domains of childhood mental health prevention in Turkey. In ECD domain, Mother-Child Education Foundation's (AÇEV) Father Support Program, in addition to its Mother and Child Education Program specifically target families who have no access to preschool education or mental health services in their communities to reduce risk factors that hinder children's health and wellbeing. In school based intervention domain, post-earthquake school based studies and their derivatives for preventing disruptive behavior will provide examples of partnering with schools and teachers as mediators of preventive mental health.



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BRIAN RUSH is a Senior Scientist and Head of the Health Systems and Health Equity Research Group and Director of the Performance Measurement and Implementation Science Department at the Centre for Addiction and Mental Health in Toronto. He is a Professor in the Depts. of Psychiatry and the Dalla Lana School

of Public Health at the University of Toronto. He holds an MA in Psychology and Ph.D. in Epidemiology and Biostatistics and has worked for 35 years in a research and evaluation capacity in the substance abuse and mental health fields. He is on the editorial board of the Journal of Substance Abuse Treatment. Brian's research and development portfolio includes the field of co-occurring disorders with an emphasis on epidemiology in general and service populations, service and system level integration, and screening and assessment tools. Related work is focused on treatment evaluation, outcome assessment and dissemination of evidence-based practices for mental health, substance abuse and co-occurring disorders.

COURSE | EVALUATION OF MENTAL HEALTH SERVICES AND SYSTEMS

Considerable effort and resources are directed at planning and implementing a comprehensive and well-balanced mental health system, including substance use services. At the same time, however, considerably less attention is given to evaluating the efficiency, effectiveness and equity of the policies and services that comprise the system. Mental health services research, performance measurement and program/policy evaluation are closely related area of endeavor that aim to understand a mental health system for purposes of quality improvement, accountability and knowledge development and exchange. In the two parts of the course devoted to this topic participants will gain an understanding of different models of evaluation - objectives-oriented, stakeholder-based, and system evaluation - each one contributing unique perspectives and which can be effectively combined in any given evaluation context. Going beyond evaluation theory participants will learn a stepped approach to planning, implementing and reporting an evaluation project in a mental health service or system. This will include an understanding of the role and limitations of program logic models in focusing on specific evaluation questions; complementary approaches to understand and incorporate internal and external context into these evaluation questions; and various methods to design and answer these questions. The importance of planning for the utilization of the evaluation results is also emphasized.

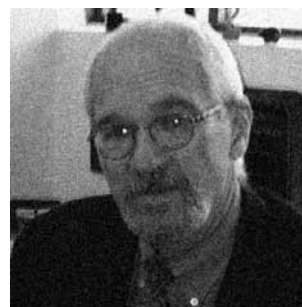


BRUCE CUTHBERT, Ph.D., is Director of the Division of Adult Translational Research and Treatment Development (DATR) at the National Institute of Mental Health (NIMH).

COURSE | TOWARD THE FUTURE OF PSYCHIATRIC DIAGNOSIS: THE NIMH RESEARCH DOMAIN CRITERIA PROJECT

Background: Major revisions are underway to the two major psychiatric manuals (DSM and ICD), but the fundamental aspects of these nosologies remain based upon presenting signs and symptoms. Research increasingly reveals that current disorder definitions do not reflect relevant neurobiological and behavioral systems -- impeding not only research on etiology and pathophysiology, but also the development of new treatments.

Discussion: The National Institute of Mental Health began the Research Domain Criteria (RDoC) project in early 2009 to develop a research classification system for mental disorders based upon dimensions of neurobiology, cognitive function, and observable behavior. The RDoC project is intended for research purposes, with the aim of conducting studies that examine fundamental neural systems and the behavioral functions that these systems implement (such as fear or working memory) that cut across current heterogeneous disorder categories. These dimensions are studied with a multi-systems approach that integrates genetics, molecular and cellular processes, neural circuit activity, and behavioral and self-report measures of functioning. This course will summarize the rationale, status, and long-term goals of the NIMH RDoC project, and outline the major differences in conception and emphasis from the DSM and ICD revisions.



DAVID PAULS was the founding director of the Psychiatric and Neurodevelopmental Genetics Unit (PNGU). On July 1, 2011 he stepped down as director. Prior to coming to Harvard in September 2001, he was the Professor of Psychiatric and Neurobehavioral Genetics in the Child Study Center at Yale University. Over

the past 30 years, his research has focused primarily on the genetics of child neuropsychiatric disorders. Research under his direction has led to a better understanding of the inheritance of the Gilles de la Tourette Syndrome (GTS), Obsessive Compulsive Disorder (OCD), specific reading disability and the autism spectrum disorders. Until recently, he led three separate international consortia of investigators devoted to finding genes for GTS, OCD, trichotillomania and related conditions. The focus of Dr. Pauls' research has been on elucidating the underlying etiologic mechanisms important for the expression of human behavior. His primary goal has been to understand the both genetic and non-



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genetic factors that underlie the manifestation of specific behaviors that begin in childhood and continue over the life course. His research has focused on five different developmental neuropsychiatric disorders: the Gilles de la Tourette syndrome, obsessive compulsive disorder, high functioning autism/Asperger's syndrome, specific reading disability and trichotillomania and related disorders. Dr. Pauls is the author of over 270 peer-reviewed articles, 60 book chapters and one book. Most of his work was funded by grants from the National Institutes of Health.

COURSE | GENETIC MECHANISMS FOR THE MANIFESTATION OF COMPLEX DEVELOPMENTAL BEHAVIORAL DISORDERS.

It has become clear over the last decade that the underlying genetic mechanisms for developmental disorders is significantly more complex than was originally thought. In this course we will review the various genetic models that have been proposed and summarize recent findings on the genetics of childhood onset mental disorders including Gilles de la Tourette syndrome, obsessive compulsive disorder, attention deficit hyperactivity disorder and autism spectrum disorders.



GEROME BREEN, is a Senior Lecturer in the MRC Centre for Social, Genetic and Developmental Psychiatry at the Institute of Psychiatry, King's College London. He is funded by the UK NIHR (the UK NHS Research Council) and is theme lead (unit leader) at the NIHR Biomedical Research Centre (BRC) for Mental Health and the South

London and Maudsley NHS Trust. He leads Bioresource (biobanking) activities at the BRC for Mental Health and a core for Genomics & Biomarkers in the NIHR BRC for Mental Health, managing a team of postdocs, lab staff and collection staff (25 members). Externally, he chairs the Network and Pathway Analysis Group of the Psychiatric Genomics Consortium (PGC) and is also an active member of the Major Depressive Disorder PGC group. For the UK NHS he sits on the National NIHR Bioresource Steering Group, Neuroscience Group and Genome Sequencing committees. His core work has been on common mental disorders such as depression and manic depression. He and his team are currently working (with collaborators) on mood disorders in the form of GWAS, linkage and whole genome sequencing studies as well as methods for GWAS bioinformatics and pathway analyses of psychiatric disorders and miRNA. His two main research focuses are on finding rare variants underlying risk for mood disorders via family based genomic studies with an additional stream of related experimental medicine and biomarker projects within the framework of the Biomedical Research Centre at IOP.

COURSE | MODERN GENETIC EPIDEMIOLOGY IN PSYCHIATRY.

This course will review the basic concepts that are informing modern genetics studies of complex disorders in psychiatry and will review how genomics is contributing to clinical practice and the drug development. Genetic variation

comes in many different flavours and it is very important to understand the different sources of genomic information and variation. The conceptual framework for case-control and families studies will be reviewed and we will review a number of case studies in mood disorders and psychosis.



GUSTAVO TURECKI MD PhD is Professor of Psychiatry and Human Genetics at McGill University, Montreal, Canada, where he leads a research and clinical career focusing on depression and suicide. Dr. Turecki has authored over 250 publications, including book chapters and research articles in peer reviewed journals such as Nature

Neuroscience, Molecular Psychiatry, Archives of General Psychiatry, among others, and is the recipient of several scientific awards, including the NARSAD Michael Kaplan Investigator Award, the American Foundation for Suicide Prevention Distinguished Investigator Award and their 2012 Career Science Award, as well as the Radio-Canada Researcher of the Year in 2010. He also serves, or has served, in the advisory boards of several scientific journals.

COURSE | BEHAVIORAL EPIGENETICS

Epigenetics refers to the study of the epigenome, i.e., the chemical and physical organization of the DNA that functionally regulate the genome, and allow for genomic plasticity. This takes place, in part, as responses to physical and social environmental signals. Three main types of epigenetic processes are currently known: DNA methylation and hydroxymethylation, chromatin modifications and non-coding RNA. This course will review basic epigenetic concepts and review key animal and human research studies that were clear breakthroughs in our understanding of how the social environment regulates genomic factors underlying behavior development and possibly psychopathology.



HELEN HERRMAN is Professor of Psychiatry at Orygen Youth Health Research Centre and the Centre for Youth Mental Health, The University of Melbourne, and Director of the World Health Organization (WHO) Collaborating Centre for Mental Health in Melbourne. She is a National Health and Medical Research Council (Australia)

Practitioner Fellow, and Honorary Fellow of the World Psychiatric Association (WPA), having served as WPA Secretary for Publications from 2005 to 2011.

COURSE | PREVENTING MENTAL ILLNESS AND PROMOTING MENTAL HEALTH: CONCEPTS AND EVIDENCE

Prevention and promotion in mental health have been advocated for more than 100 years. The social determinants of mental health and the risk factors for mental illnesses are becoming better understood. As for public health more



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broadly, multiple interventions at different levels across health and non-health sectors are needed to: Promote mental health in different populations and settings, reduce the incidence of mental illnesses in populations and settings, and prevent the onset of cases ('high-risk strategy'). Research evidence illustrates the effectiveness of a variety of public health and social interventions. Interventions that promote mental health may also improve the broader health and function of individuals and communities because of the close interaction between mental health, physical health and behaviour. Most evidence has been obtained in high-income countries although the need is greater in low-income countries. Innovation, adaptation and evaluation are required, supported by international collaboration. The workshop will consider examples of the role of promotion and prevention in improving mental health. Promoting the mental health of vulnerable women includes an emphasis on empowering women and tackling violence in the home and community through mental health and social policy as well as community development. Preventing depression occurs through population interventions and through 'high-risk strategies'. Improving mental health after a disaster includes support for human rights and promoting mental health. Human rights abuses are closely interconnected with poor mental health, poor physical health and social disadvantage. Finally, the workshop will address the concept of resilience: an interactive concept, referring to a person's relative resistance to environmental risk experiences, or the overcoming of stress or adversity. Resilience after disasters or adverse childhood events is related intimately to a person's personal characteristics and life circumstances, as well as wider factors, including social conditions, safety, participation, and access to education and work.



JAMES C. FRAUENTHAL received a B.S. in Mechanical Engineering from Tufts University and a Ph.D. in Applied Mathematics from Harvard University. He did a Post-Doctoral Fellowship at the Center for Population Studies, a division of the Harvard School of Public Health. He was next a professor in the Department of Applied Mathematics

and Statistics at Stony Brook University where he was granted tenure after one year and was awarded the New York State Chancellor's Award for Excellence in Teaching. He left Stony Brook to become a Member of Technical Staff at Bell Telephone Laboratories. He then worked as a Senior Technical Leader at Cisco Systems. He is currently an adjunct professor in the Department of Mathematics at the New York University Polytechnic Institute where he teaches graduate courses on graph theory and mathematical model building. During the course of his career, Dr. Frauenthal has applied mathematics to a wide range of fields including fluid and solid mechanics, human demography, water resource planning, harvesting of fisheries and forests, queuing models of telephone traffic and voice response systems, audio quality and network echo control. In addition to his scientific research publications, he has more than a dozen US patents issued or pending, has published a number of expository monographs on mathematical modeling of human and animal populations and epidemiology and has taught short courses around the world on mathematical model building.

COURSE | MATHEMATICAL MODELING IN EPIDEMIOLOGY

The purpose of this course, Mathematical Modeling in Epidemiology, is to introduce researchers and clinicians to the concepts and methods that are used in epidemiology. This will be accomplished by means of a series of examples. While it will be assumed that the audience for the course is scientifically sophisticated, the material presented will be accessible to individuals who do not have a strong background in mathematics, computer science or statistics. Epidemiology is the study of the patterns, causes and effects of disease in populations. Many people think narrowly about epidemiology as the study of infectious diseases using statistical data analysis. The course will discuss a wide range of epidemiological ideas and techniques, with particular attention to two important directions: using predictive mathematical and computational models along with statistical models and doing so to understand a broad range of ailments, conditions and diseases that go beyond the outbreak and subsidence of an infectious disease. The current use of mathematical, statistical and computational methods in epidemiology will be illustrated using examples selected from a variety of areas. These will include models such as social networks and artificial intelligence to analyze topics such as substance abuse, sexually transmitted diseases and body image. The course will provide participants with an introduction to how they might participate most productively in scientific research that advances the analytic description of ailments.



JOAN KAUFMAN, PhD is an Associate Professor in the Department of Psychiatry at Yale University School of Medicine, and Director of the Child and Adolescent Research and Education (CARE) Program. The CARE Program focuses on two areas of investigation: 1) Studies in support of the National Institute of Mental Health's Research

Domain Criteria (RDoC) initiative which aims to develop the necessary database to derive a new psychiatric nomenclature informed by neuroscience, genetics, and psychology; and 2) Research on risk and resilience in maltreated children. These two lines of research are synergistic and interrelated, with the study of maltreated children having a number of advantages for the RDoC project, including: the study of a subset of patients that are frequently treatment resistant to standard clinical interventions; examination of a relatively homogenous sample with the onset of psychopathology proposed to be associated with stress-related mechanisms; and well-established relevant animal models to facilitate translational research. Dr. Kaufman and colleagues utilize clinical assessment, neuroimaging (e.g., structural, fMRI fear conditioning paradigm, resting state connectivity), and genetics (e.g., polymorphisms, epigenetic markers) research methods, with many of the clinical assessments collected at a day camp devised specifically for their research purposes.



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COURSE | UNDERSTANDING HOW EPIGENETIC MECHANISMS CAN TRANSLATE EARLY-LIFE EXPERIENCES INTO LASTING CELLULAR MEMORIES AT THE ROOT OF MENTAL DISORDERS

Worldwide, approximately 40 million children are subjected to child abuse each year. Child abuse is a non-specific risk factor for multiple psychiatric disorders, including Posttraumatic Stress Disorder, Major Depression, and Alcohol and Substance Abuse Disorders. How do experiences of early abuse confer risk for later psychiatric disorders? Epigenetics has been proposed as one possible mechanism. Epigenetics refers to functionally relevant modifications to the genome that do not involve a change in DNA nucleotide sequence. These modifications regulate gene activity and play a role in acute regulation of genes in response to changes in the environment. This course reviews results of recent preclinical and clinical research studies examining epigenetic mechanisms and markers associated with psychiatric disease; and results of a genome wide methylation association study that found individual differences in methylation of CpG sites in genes involved in fear conditioning, synaptic plasticity, and myelination/circuitry formation predicted individual differences in depression ratings in maltreated children. Epigenetic profiling has transformed diagnosis, treatment planning, and drug development in other areas (e.g., cancer) of medicine, and it appears to hold promise in psychiatry as well. Epigenetic changes are often long-lasting, but they need not be permanent. Implications for prevention and promising intervention approaches will also be discussed.



STAN KUTCHER MD, FRCPC, FCAHS, Sun Life Financial Chair in Adolescent Mental Health, Dr. Kutcher is an internationally-renowned expert in the area of adolescent mental health and a national and international leader in mental health research, advocacy, training, policy, and services innovation working at the IWK and Dalhousie

University. He currently holds the Sun Life Financial Chair in Adolescent Mental Health where he applies knowledge translation techniques to advance adolescent mental health promotion, education, research and training locally, nationally and internationally. He currently directs the World Health Organization Collaborating Center in Mental Health at Dalhousie and recently ran as the federal Liberal candidate for Halifax.

COURSE | MENTAL HEALTH CURRICULUM IN HIGH SCHOOL

The theme for the sessions will be “How can the pathway to best quality mental health care be improved using the school as part of the process?” The sessions will be very interactive and will require participants to WORK. The students will need to bring their laptops to each session so we will need to have internet access in the venue.



ACIOLY L. T. LACERDA, M.D., Ph.D., is a Professor of Psychiatry and Clinical Neurosciences at the Department of Psychiatry, Federal University of São Paulo (UNIFESP), São Paulo, Brazil. He is also Director of the Center for Research and Clinical Trials Sinapse-Bairral, where he has worked since its foundation. He received his

M.D. degree at the Federal University of Pernambuco and completed psychiatric residency training at the State University of Campinas. In 2000, he received his Ph.D. degree at the State University of Campinas. In 2001–2002, he completed postdoctoral fellowships at the Neurochemical Brain Imaging Laboratory and Neuroimaging Laboratory, University of Pittsburgh, where he was named Visiting Professor and Associate Researcher in 2003. Dr. Lacerda is closely involved in research on neurobiology of severe mental disorders and has published several papers, books, and book chapters mainly on neuroimaging and neuropsychology fields. He currently holds grants in different research fields. To that end, he is PI of recently funded projects on management of treatment resistant depression and role of neuroprotective agents in treatment of severe mental disorders. Dr. Lacerda has had his research published in peer reviewed articles in such prestigious journals as British Journal of Psychiatry, Biological Psychiatry, and NeuroImage.

Currently, he serves as a referee for various high-impact factor journals and is member of the Editorial Board of the Brazilian Journal of Psychiatry.



ANA C. CHAVES is Affiliated Professor at the Department of Psychiatry at the Faculty of Medicine of the Federal University of São Paulo (UNIFESP-EPM). Her research has focused for more than 20 years on Schizophrenia and related psychotic disorders. Over the last decade her interest has been on the initial phases of psychotic disorders, mainly on first episode

psychosis. She is currently head of the First Episode Psychosis Program, coordinator of the Psychiatry Residency Program and work as a clinician at the University Psychiatry Ward of São Paulo Hospital.



ANDREA A. FEIJÓ MELLO graduated from Santa Casa Medical School in 1990 and she was a resident in Psychiatry at the Hospital do Servidor Público Estadual, São Paulo State (1990–93). She obtained her Master Degree from the Federal University of São Paulo (UNIFESP) in 2001; and her PhD, a four-year program from the

same University, with a one-year fellowship (2003) at Brown University, Rhode Island under the supervision of Dr Lawrence H. Price, in 2006. Dr. Mello began

a post doctoral research under the supervision of Dr Jair Mari in 2009, and since then she is co-orienting students from the post-graduation of the department of Psychiatry from UNIFESP, where she is employed as a Psychiatrist. She is the responsible for the outpatient clinic for the treatment of depression and stress at PROVE (violence and stress research program). Dr Mello's researches and publications in journals and book chapters are related to stress and mood disorders. Her present post-doctoral study with maltreated children is related to risk factors, mainly the influence of violence, in the development of mental illness.



ANDREA PAROLIN JACKOWSKI

holds a degree in Biology, MSc and Ph.D in Medical Sciences. Her postdoctoral fellowship was in Neuroimaging at Yale University. Her main areas of interest concentrate in interdisciplinary research projects in structural neuroimaging and risk factor for mental disorders. She is currently

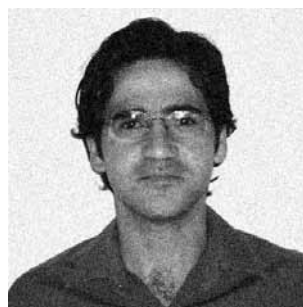
an assistant professor at the Department of Psychiatry at Universidade Federal de São Paulo (UNIFESP-Brazil), where she is the coordinator of the Neuroimaging unit of the Laboratório Interdisciplinar de Neurociências Clínicas (LiNC).



ANGÉLICA M. CLAUDINO is a

psychiatrist and supervisor at the Post-Graduation Program in Psychiatry at the Department of Psychiatry, Federal University of São Paulo (UNIFESP). She has over 20 years of experience in the field of Eating Disorders and is head of PROATA/UNIFESP (Eating Disorders Program) since 1994, where she is

supervisor of clinical work and conducts research, with a main focus on diagnosis, neurobiology and treatment (randomized controlled trials and systematic reviews) of Eating Disorders. Dr Claudino did her post-doctoral training at the Institute of Psychiatry, King's College London, UK. She is a member of the Academy of Eating Disorders and of the editorial boards of scientific journals in the field of her expertise. She is Chair of the Eating Disorders Consultation Group, World Health Organization, for the revision of the ICD-10 Mental and Behavioral Disorders.



ANTÔNIO TEIXEIRA is Associate

Professor of Internal Medicine and Neurology at the Department of Internal Medicine, School of Medicine, Universidade Federal de Minas Gerais (UFMG), Belo Horizonte, Brazil. He graduated in Medicine from UFMG, and did residency in Psychiatry, Internal Medicine and Neurology (2001–2003)



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at the University Hospital, UFMG. He also got MSc and PhD degrees in Cellular Biology. He is member of the Brazilian Academy of Sciences, the Brazilian Academy of Neurology and the Brazilian Psychiatric Association.

Besides clinical, teaching, and administrative activities, he develops research in two main areas: neuropsychiatry and neuroimmunology. In neuropsychiatry, his research has focused the development and/or validation of clinical instruments to assess behavioral syndromes (e.g. depression, anxiety) in neurological diseases, such as epilepsy, migraine and Parkinson's disease. The main objective of this line is to provide clinical tools to help busy physicians to identify significant psychiatric disorders. He has also been involved in community-based studies to assess the impact of headaches (Capela Nova Study) and cognitive disorders (Pietà Study) in the population of the countryside of Brazil. Now he is especially interested in translational research aiming to understand the involvement of inflammatory/immune mechanisms in behavior and cognition. For this purpose, he conducts basic (animal models of central nervous and systemic inflammation) and clinical studies. One secondary objective of this line of investigation is to search for inflammatory biomarkers of human diseases, including neglected ones (e.g. leprosy).



CLARISSA SEVERINO GAMA, is Professor of Psychiatry at Universidade Federal of Rio Grande do Sul (UFRGS), Porto Alegre, Brazil. She received the degrees of MD (1995), Psychiatrist (1999), M.Sc. (2001) and PhD (2004) by UFRGS. She has taken a Post-Doctorate (2007-2008) at Department of Clinical and Biomedical Sciences, Barwon

Health, University of Melbourne, Geelong (VIC), Australia. Professor Gama work has shed light in the biological underpinnings of the decline in cognition and physical health that takes place among patients with schizophrenia and bipolar disorder. It emphasizes the pathophysiological involvement of different biomarkers related to oxidative stress, neurotrophins and inflammation as new therapeutic targets. She has published over 60 peer-reviewed papers and has around 900 citations, with an h-index of 16 (Gama CS*, Scopus).



CLEUSA P. FERRI is a psychiatrist and is currently an affiliated professor at the Federal University of Sao Paulo, working in the departments of Psychobiology and Psychiatry on their post graduation programs. For 10 years Dr Ferri worked at the Institute of Psychiatry, King's College London where as well as her teaching activities

Dr.Ferri developed research in the areas of ageing, dementia and other chronic conditions. She is part of the 10/66 Dementia Research Group working with health professionals from around the world and has developed other collaborations in this area with UK and Brazil based colleagues. Dr Ferri assisted

in the Global Burden of Disease 2010 Project as an international specialist in dementia and in the same capacity was also involved with the MHGap project with the WHO. She also has an interest in the areas of addiction and the implications of violence on women's health.



CRISTIANE SILVESTRE DE PAULA is a psychologist, with Master

(concluded in 2001) and PhD (concluded in 2005) from the Department of Psychiatry at Federal University of São Paulo (UNIFESP), focused in Clinical Epidemiology. In 2002/2003 she spent 9 months as a visiting scholar at the School of Public

Health at the Johns Hopkins University, Baltimore, US.

Since 2005, she is an Associate Professor at the Developmental Disorder Post Graduation Program at the Mackenzie University in Sao Paulo and Researcher at the Social Psychiatry Division of the Department of Psychiatry at UNIFESP. Dr de Paula is also Member of two international networks of Epidemiology: International Clinical Epidemiologic Network (INCLIN), since 1998, and International Autism Epidemiology Network (IAEN), since 2007.

Her main research interests are: (a) epidemiological studies related to child and adolescent mental health and violence, (b) child and adolescent mental health services research, and (c) research in Autism Spectrum Disorder.

Currently, she is the PI of 3 research projects:

(1) The Epidemiological Study of Mental Health among Brazilian School Children, the first Brazilian multicenter epidemiological study of child mental health to establish the frequency psychiatric disorders, to identify psychosocial risk factors and to describe mental health service use in representative samples of four Brazilian regions.

(2) Training in Child Mental Health for Health Professional from the five Brazilian regions to develop and assess a Brazilian version of the "Mental health communication skills for child and adolescent primary care" (originally developed at the Johns Hopkins University).

(3) Autism Spectrum Disorder and Developmental Delay in Day Care children: a pilot study, to establish ASD frequency rates in children aged 18 a 36 months in public day care centers from a typical Brazilian city and to promote orientation to family and to day care professionals of the detected cases.



DEBORAH SUCHECKI, is an Adjunct Professor of Psychopharmacology, Graduated in Biomedicine with a Master's degree in Pharmacology and Ph.D. in Psychobiology. Deborah Suchecki was a post-doc fellow in Stanford University, working in the Laboratory of Developmental Psychobiology in the

Department of Psychiatry and Behavioral Sciences. For more than 20 years she has been working with the impact of stress in physical and mental health,



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especially in animal models of depression and anxiety. Currently she is a teacher at Universidade Federal de São Paulo, leading a group of young scientist focused on studying the consequences of stressors, such as sleep deprivation and of early life stress on memory, metabolism, immune system and as risk factors for the development of anxiety and depression in adolescents and adults. She studies the role of neuropeptides and hormones as mediators of these effects, in particular, neuropeptide Y, prolactin, oxytocin, orexin and glucocorticoids. Deborah is an ad hoc reviewer in the State and Federal funding agencies, is a member of the boarding committee of the journals *Sleep* and *Frontiers in Sleep and Chronobiology*, and has reviewed manuscripts to several journals, such as *Biological Psychiatry*, *Neuroscience* and *Biobehavioral Reviews*, *Psychoneuroendocrinology*, etc.



DENISE RAZZOUK is medical psychiatrist, graduated by the Faculty of Medicine, University of São Paulo (USP) in 1986, with residency in psychiatry at the Institute of Psychiatry from FMUSP (1987-1990). Completed the Masters Degree and a Doctorate in Medicine (Psychiatry) by the Department of Psychiatry at the Federal

University of S Paulo (UNIFESP) in 2001. Held post-doctoral studies in Economics in Mental Health in Center of Economic Mental Health, Institute of Psychiatry, King's College, University of London in 2008. Currently, is Affiliated Professor of the Department of Psychiatry, Federal University of São Paulo (Unifesp), coordinator of the Center of Economy in Mental Health and supervisor and professor in graduate program of the Department of Psychiatry, Unifesp. Currently, develops projects in the economics of Mental Health, including assessment and planning of mental health services, psychiatric reform, economic analysis of health services and interventions in mental health and socio-economic impact of mental disorders



EVANDO COUTINHO graduated in Medicine at the University of the State of Rio de Janeiro - UERJ (1979). MSc in Public Health at the Oswaldo Cruz Foundation - Fiocruz (1987), MSc in Epidemiology at the London School of Hygiene and Tropical Medicine - LSHTM (1994) and PhD in Public Health at the Federal University of Bahia -

UFBa (1995). He is currently Senior Researcher in Epidemiology at Fiocruz and Senior Lecturer in Epidemiology in the Institute of Social Medicine - UERJ. Former editor of the Cochrane Schizophrenia Group. His main interests are epidemiology of mental disorders, clinical trials and meta-analysis.

Main publications since 2010:

Silveira H, Moraes H, Oliveira N, Coutinho ESF, Laks J, Deslandes A. Physical Exercise and Clinically Depressed Patients: A Systematic Review and Meta-

Analysis. *Neuropsychobiology*; 67: 61-8, 2013.

Reis T, Brandao CO, Freire Coutinho, ES, Engelhardt E, Laks J. Cerebrospinal fluid biomarkers in Alzheimer's disease and geriatric depression: preliminary findings from Brazil. *CNS Neuroscience & Therapeutics*; 18: 524-29, 2012.

Souza WF, Figueira I, Mendlowicz MV, Volchan E, Portella CM, Mendonça-de-Souza ACF, Coutinho ES. Posttraumatic Stress Disorder in Peacekeepers. *The Journal of Nervous and Mental Disease*; 199: 309-12, 2011.

Bezerra ABC, Coutinho ES, Barca ML, Engedal K, Engelhardt E, Laks J. School attainment in childhood is an independent risk factor of dementia in late life: results from a Brazilian sample. *International Psychogeriatrics*; 4:1-7, 2011.

Reichenheim ME, Coutinho ES. Measures and models for causal inference in cross-sectional studies: arguments for the appropriateness of the prevalence odds ratio and related logistic regression. *BMC Med Res Methodol*. Jul 15;10:66, 2010.



ELISA BRIETZKE is psychiatrist and professor of Psychiatry and Mental Health at Federal University of São Paulo, where is also scientific coordinator of the program for Recognition and Intervention in Individuals in At-Risk Mental States. She develops researches in neurobiology of bipolar disorder

and inflammation in psychiatric disorders with a special focus in early stages of bipolar disorder and psychosis.



GERARDO MARIA DE ARAUJO FILHO, M.D., Ph.D., is Professor of Psychiatry at the Department of Psychiatry and Medical Psychology, State Faculty of Medicine of São José do Rio Preto (FAMERP), Sao Paulo, Brazil, and Affiliated Professor of Psychiatry and Clinical Neurosciences at the Department of Psychiatry, Federal

University of Sao Paulo (UNIFESP), Sao Paulo, Brazil. He received his M.D. degree at the Federal University of Ceará in 2000 and completed psychiatric residency training at UNIFESP. In 2009, he received his Ph.D. degree at the UNIFESP. In 2011-2013, he completed postdoctoral fellowships at the Neuroimaging and Cognition Interdisciplinary Laboratory, UNIFESP. In 2009-2012, he was the Technical Director of a specialized mental health service (AME Psiquiatria Vila Maria, São Paulo, Brazil) and technical assistant for mental health of Vila Maria district, São Paulo, Brazil. Dr. Gerardo is closely involved in research on neurobiology of severe mental disorders; psychiatric disorders associated with Epilepsy and mental health services. He has published several papers, and book chapters mainly on neuroimaging and neuropsychology fields. Currently, he serves as a referee for various high-impact factor journals.



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HUDSON DE CARVALHO is a psychologist (UFMG), holds MSc in Developmental Psychology (UFMG) and Ph.D in Psychiatry (UNIFESP). His main areas of interest concentrate in interdisciplinary research projects in psychiatric nosology, websurveys and individual differences in temperament and personality. Currently, he is a full

time professor of Clinical Psychology at the Federal University of Pelotas (UFPel) and an associated researcher of the Brazilian Internet Study on Temperament and Psychopathology (BRAINSTEP).



ISABEL ALTENFELDER SANTOS BORDIN, MD, MSc, PhD Child and adolescent psychiatrist, researcher in Clinical Epidemiology applied to Child and Adolescent Mental Health, and head of Social Psychiatry Division at the Department of Psychiatry, Federal University of São Paulo (UNIFESP), Brazil. After

completing a two-year research training at McMaster University, Canada, and obtaining a master degree in Clinical Epidemiology (1995), I became a member of the International Clinical Epidemiology Network (INCLEN), and started to develop collaborative projects. After obtaining a doctoral degree in Psychiatry at UNIFESP (1996), I had the opportunity of becoming the first thesis supervisor in the field of Child and Adolescent Mental Health at UNIFESP. My responsibilities at the Department of Psychiatry, UNIFESP include research and teaching/training activities (supervision of post-graduate students). My main research interests are related to at-risk children and adolescents for mental health problems, such as those living under disadvantaged circumstances, exposed to poverty and domestic violence. Additional research interests include anti-social behavior, crime involvement, pregnancy in adolescence, and barriers to receive mental health care. In the past 20 years, I had the opportunity of developing Brazilian versions of international screening and diagnostic questionnaires in child/adolescent mental health, and of participating in national and international research initiatives.



JOÃO RICARDO SATO holds a degree in Statistics (2002), MSc (2004) and Ph.D. (2007) from the University of São Paulo. His areas of interest concentrate mainly in interdisciplinary research projects involving the following topics: statistical modeling and computational neuroscience, neuroimaging, functional mapping of

the human brain, methods of pattern recognition, time series analysis, biostatistics, statistical and nonparametric regression models. JRS is an

assistant professor at the Universidade Federal do ABC (Brazil), where he is the coordinator of the Cognition Research Unit.



LEONARDO BALDAÇARA, M.D., Ph.D. is Associate Professor of University of Tocantins Medical School, Brazil. He is also President of the Medical Residency State Commission of Tocantins and member of the Federal Commission of Medical Residency of the Ministry of Education in Brazil. Baldaçara received the Masters

Degree in Sciences in 2008 and the Doctorate in the Sciences in 2011 by the Psychiatry and Medical Psychology Postgraduate Program of Federal University of São Paulo with the theme «The cerebellum and psychiatric disorders». Furthermore, due to the studies of the cerebellum he has published many articles and has received several awards as «The best paper on any psychiatric topic by the Brazilian Association of Psychiatry in 2012», «Article among the 10 most cited in the Brazilian Journal of Psychiatry in 2012», «Geriatric Psychiatry Prize by Brazilian Association of Psychiatry in 2008» and «Better presentation of original study by Federal University of São Paulo in 2008». He is also the author of two books and several chapters in psychiatry and neurosciences. Dr. Baldaçara has presented many lectures and has been teaching medical students, medical residents and students of post graduation. He is member of the Brazilian Association of Psychiatry and of the Interdisciplinary Lab. of Clinical Neurosciences of Federal University of São Paulo. He also has experience in psychiatric emergencies and was coordinator of the Emergency Psychiatric Service of Santa Casa the São Paulo where he organized the Emergency Psychiatric Course for health professionals. He published one of the few articles that compared usual forms of rapid tranquilization in agitation.



LUÍS FERNANDO TÓFOLI graduated in Medicine at the University of São Paulo (1996), completed his medical residency in Psychiatry (2000) at the Institute of Psychiatry, University of São Paulo Medical School, and his Ph.D. in Medicine (Psychiatry) at the University of São Paulo (2004). He is currently an associate professor at the

Medical School of the Federal University of Ceará, Sobral Campus, working in the School of Medicine since 2002 and the Post-Graduate Program in Family Health since 2009. He is expected to become a professor at the State University of Campinas Medical School, São Paulo. He has experience in mental health, acting on the following subjects: primary care mental health, community mental health, medically unexplained symptoms (somatic distress), and ayahuasca.



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LUIZ R. RAMOS MD PhD. Graduated in Medicine in 1976 at the Escola Paulista de Medicina (EPM) in São Paulo. Received a MSc in Community Medicine at the London School of Hygiene and Tropical Medicine in 1981, and a PhD in Gerontology at the same institution in 1987. Started his academic carrier at

EPM in 1984, in the Preventive Medicine Department (PMD). In 1990, founded the discipline of Geriatrics at EPM and became its chief until 1995. In 1996 went to the Geriatric Division of Harvard Medical School as a visiting professor, to develop the epidemiology of cognitive impairment in the elderly. In 1997 received the title of "Livro-Docência" in Geriatrics at EPM. In 2004 became Full Professor of Preventive Medicine at EPM and was Head of the DPM from 2005 to 2011. Also coordinated the postgraduation program in Public Health at the Universidade Federal de São Paulo (UNIFESP) from 2006 to 2010. Since 1991 coordinates the first population based cohort study with elderly people in Brazil, based on the Center for the Study of Aging of UNIFESP. So far, has supervised 52 MSc dissertations and 19 PhD thesis throughout his carrier and published 112 papers in peer-reviewed journals.



MARIA CARMEN VIANA, Graduated as Medical Doctor (MD) at the Federal University of São Paulo in 1984, has undertaken Residency training in Psychiatry in the Department of Psychiatry at the Federal University of São Paulo (1985-1986), and specialization in Epidemiology and Medical Statistics at the London School

of Hygiene and Tropical Medicine, University of London (1988). Trained in clinical psychiatry as Visiting Registrar in Psychiatry at the Maudsley Hospital and Bethlem Royal Hospital, University of London (1992/1993), and obtained a PhD degree in Medicine/Psychiatry in the Institute of Psychiatry/Kings College, University of London (1995). In 2009, developed a Post-Doctoral Project at the Section of Psychiatric Epidemiology in the Department and Institute of Psychiatry, São Paulo University, funded by FAPESP.

Has clinical and research experience in Psychiatry, especially in clinical psychiatry, psychiatric epidemiology, women's mental health, and violence in the context of mental health.

Is one of the Principal Investigators of the "São Paulo Megacity Mental Health Survey", which is part of the World Mental Health Survey, an international initiative launched by the World Health Organization and Harvard University.

Member of the International Consortium in Psychiatric Epidemiology (ICPE), International Federation of Psychiatric Epidemiology (IFPE), World Mental Health Survey Initiative (WHO-WMHS), Brazilian Psychiatric Association (ABP), Espírito Santo Psychiatric Association (APES), founding-member of the Brazilian Association of Bipolar Disorder (ABTB), and international member of the American Psychiatric Association (APA).

Is currently Associate Professor in the Department of Social Medicine and in

the Post-Graduate Program in Collective Health in the Federal University of Espírito Santo (UFES), and collaborating researcher at the Section of Psychiatric Epidemiology in the Institute of Psychiatry, São Paulo University.



MARIA CONCEIÇÃO DO ROSÁRIO, psychiatrist, is an

Associate Professor at the Child and Adolescent Psychiatry Unit (UPIA) at the Department of Psychiatry at Federal University of São Paulo (UNIFESP). She is also an Adjunct Professor at the Child Study Center at Yale University. Her expertise is in child and developmental

psychiatry, and she has conducted research on obsessive compulsive disorder (OCD), tic disorders and attention deficit hyperactivity disorder (ADHD). Dr. Rosario's major interests are dedicated to better understanding the phenotype of these disorders and their genetic and environmental interactions. Dr. Rosario is also interested in producing and disseminating educational information and training programs for mental health professionals with the main goals of improving early identification of psychiatric symptoms; implementing prevention strategies and early referral for adequate treatment; and developing state-of-the-art and easy to understand information on psychiatric disorders for reducing mental health stigma.



MARIA INÊS QUINTANA is a psychiatrist by background working with psychiatric epidemiology. She is Associated Professor at the Psychiatric Department of the Faculty of Medicine, Federal University of São Paulo (UNIFESP), and researcher of the Center for Applied Statistics and Methodology (NEMAP) and

collaborative member of the WHO Collaborating Center – Composite International Diagnostic Interview Training Center (CIDI WHO) since 1998. Her research interests focus on the design and conduct of community-based epidemiological studies and, especially in relation to common mental disorders in primary care, psychiatric disorders during pregnancy, mental health of incarcerated populations, PTSD, sexual abuse and psychotropic drugs use.

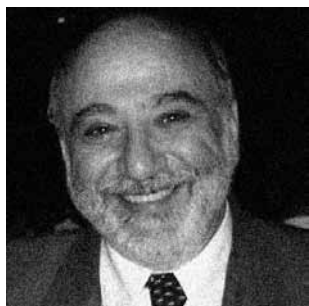


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MARIO F. JURUENA graduated in Medicine from Pontifical Catholic University, Southern Brazil. He did his residency training in psychiatry and completed interdisciplinary course for specialization in Mental Health School Porto Alegre, Brazil. He received his MPhil. at the Department of Psychobiology, Federal University of

Sao Paulo; MSc. in Affective Neuroscience, Universiteit Maastricht, the Netherlands and his PhD in Psychiatry from University of London. He is also a specialist in adult psychiatry in the UK according Medical Royal Colleges and General Medical Council. He completed training in cognitive psychotherapy at Beck Institute for Cognitive Therapy and Research, Philadelphia-USA. Most of his studies are related to the neurobiology, diagnosis and treatment of affective disorders and their relationship to stress. He is currently the Associate Editor of BioMed Central (BMC) Psychiatry-UK. He was awarded by British Association for Psychopharmacology with "The Senior Clinical Psychopharmacology Award 2007" and also received the Robert W. Kerwin Psychopharmacology Prize in 2010 from the Royal College of Psychiatrists for the best article published on the subject in the British Journal of Psychiatry. He is currently the head of the Stress and Affective Disorders (SAD) Programme, Prof. Dr. at the Department of Neurosciences and Behavior, University of São Paulo and Honorary Senior Lecturer at the Institute of Psychiatry, Kings College London.



MIGUEL ROBERTO JORGE is an Associate Professor of the Department of Psychiatry at the Federal University of São Paulo Medical School (UNIFESP/EPM), where he got his Medical Doctor (M.D.) degree, a Masters of Science (M.Sc.) and a Philosophical Doctor (Ph.D.) degrees in Psychopharmacology, and a Full

Professorship ("Livre-Docência) in Clinical Psychiatry. At the UNIFESP, Prof. Jorge hold different positions, including Chairman of the Department of Psychiatry, Academic Director of the Medical School, and Dean for Undergraduate Studies.

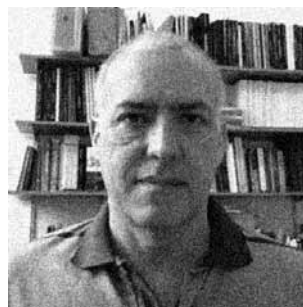
During his career, Prof. Jorge was President of the Brazilian Association of Psychiatry (ABP), Secretary for Sections of the World Psychiatric Association (WPA), Regional Vice-President of the World Federation for Mental Health, a Council Member of the World Medical Association (WMA), and he currently is the Director of International Affairs of the Brazilian Medical Association (AMB). He is also a distinguished member of the World Psychiatric Association, the American Psychiatric Association, the European Psychiatric Association, and of the World Health Organization Panel of Experts on Mental Health.

Prof. Jorge's main interests are General Medical and Psychiatric Education, and on issues such as Psychiatric Diagnosis and Classification, Transcultural Psychiatry and Psychiatric Epidemiology, and Stigma Related to Mental Disorders. He has published and lectured extensively on these topics in Latin America, Europe, USA, Australia, and Japan.



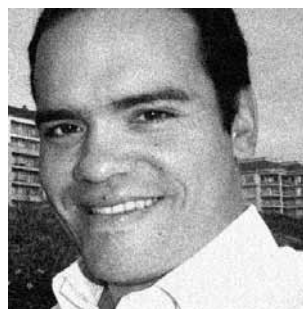
MIRIAN HAYASHI is a professor at UNIFESP and the Coordinator of Technology Transfer (TT). With a degree in pharmacy and biochemistry, she did several post-doctoral fellowships abroad (Japan, France, USA, Argentina), which provided her a strong background in the development of new mechanisms of action and

targets for drug discovery. She worked in the private sector in the pharmacology and biophysics department of Hoffman La Roche New Drugs Development Center in Japan (1989-1993). During her career, she has been awarded several governmental grants, which supported her studies and led to several patents applications. She is also an effective member of the Scientific Counseling Board and the manager of Innovation and Technology Transfer of the Office of Technology Transfer of UNIFESP ('Núcleo de Propriedade Intelectual e Gestão da Ciência e Tecnologia' (NUPI-NIT).



PAULO R. MENEZES is a psychiatrist by background with more than 20 years experience of working with Psychiatric Epidemiology. He is Associated Professor at the Department of Preventive Medicine at the Faculty of Medicine, University of São Paulo (FMUSP) and the co-leader of the Research Group on Psychiatric

Epidemiology (EPSI), certified by the National Research Council-Brazil since 1997. Paulo is member of editorial boards of scientific journals and of the Academy of Sciences of the State of São Paulo, Brazil. His research interests focus on the design and conduct of community-based observational studies and randomized trials, especially in relation to depression and common mental disorders in primary care, depression during pregnancy, first episode psychosis, and mental health in old age.



QUIRINO CORDEIRO JUNIOR, Professor and Head of the Department of Psychiatry, Santa Casa Medical School, São Paulo, Brazil. Director of the Center for Integrated Mental Health Care of the Santa Casa Hospitals. Medical degree, psychiatry residency and PhD from the University of São Paulo Medical School.



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ROSELI G. SHAVITT has received the following degrees from the University of São Paulo School of Medicine, São Paulo, Brazil: Medical Doctor (1987); Residency in Psychiatry (1988-1989); Master of Science (1990-1993 / Field of research: Consultation-liaison psychiatry - Interactions between agoraphobia/panic disorder

and asthma); PhD (1998-2002 / Field of research: Predictive factors of short-term response

to treatment in Obsessive Compulsive Disorder); Post-Doctoral Researcher (2007-2010 / Field of research: Predictive factors of long-term response to treatment in Obsessive Compulsive Disorder). Currently she has the following academic activities: Mentor of post-graduate students at the Department of Psychiatry, University of São Paulo School of Medicine. Field of research: Obsessive-compulsive spectrum disorders. Director, Obsessive-Compulsive Spectrum Disorders Program. Department & Institute of Psychiatry, University of São Paulo School of Medicine. Associate Director of the International College of Obsessive-Compulsive Disorders (ICOCs) since September, 2010. She has over 50 publications in peer-reviewed journals and has just edited the second edition of a book about OCD for the lay community in Brazil. She is also in private practice in adult psychiatry, with emphasis on mood and anxiety disorders.



SANDRA FORTES is Psychiatrist and Associate Professor on Mental Health and Medical Psychology in the Medical Sciences School of the University of Rio de Janeiro State (UERJ). MSc in Psychiatry by the Institute of Psychiatry/Federal University of Rio de Janeiro and PhD in Public Health (epidemiology) by the Social Medicine

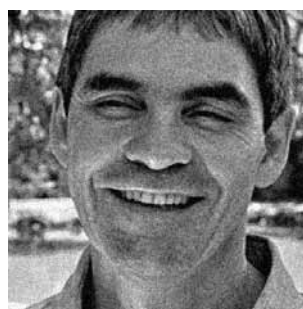
Institute/UERJ, she coordinates the Interdisciplinary Laboratory for Primary Care Research (LIPAPS)/UERJ. She is specialized in Mental Health (MH) in Primary Care (PC) and General Hospital Psychiatry, being head of the Research Group "Mental Health in Primary Care"/CNPq, studying integrated health system organization, interdisciplinary professionals training, epidemiology (specially associated psychosocial factors related to mental health distress in PC and medically unexplained symptoms) and therapeutic interventions in primary care. She also coordinates the Mental Health Service in Policlínica Piquet Carneiro/UERJ, integrated to the National Health System (SUS) in Rio de Janeiro city, working within the collaborative care system (matrix support teams) with the Family Health Strategy, where Family Medicine and Psychiatry Residents and Psychologists specialization students' are trained for interdisciplinary interventions on health promotion, disease prevention and therapeutic intervention in mental health on Primary Care. Member of the Mental Health Working Party of WONCA and the Primary Care Working Group for ICD-11/WHO, she has several papers and book chapters published on these issues.



SANDRA SCIVOLETTA, Graduated in Medicine (1991) and obtained her PhD (1997 - FMUSP) with adolescent drug abuse. She has the specialist degree in Psychiatry by the Brazilian Association of Psychiatry (1997) and certificate in Child and Adolescent Psychiatry by the same Association (1998). In 1993, she deployed the

outpatient clinic for treatment of adolescent drug users on IPq-HC-FMUSP, which she has been coordinating until now. From 2001 to 2006, she coordinated the Interdisciplinary Group of Studies on Alcohol and Drugs -IPq-HC FMUSP. In 2005, she started working with neglect children; since 2007 she has coordinated the Equilibrium Program, an innovative project that is the result of a partnership between the Department of Psychiatry of FMUSP and São Paulo City Hall. The program is a community-based but protected activity center with recreational and multi-professional services focused on reintegration of maltreated children and adolescents, in an academic research context. In 2008, she was approved in the contest for Professor of Child and Adolescent Psychiatry at Department of Psychiatry at FMUSP. Currently, she is the head of the Child and Adolescent Psychiatric Service (SEPIA) and responsible for the residence training-program in Child and

Adolescent Psychiatry at the IPq-HC-FMUSP. She is also professor and mentoring for MD and PhD students at the Department of Psychiatry at the FMUSP. Her line of research is in the area of Child and Adolescent Psychiatry, with emphasis on addiction, child maltreatment, post-traumatic stress disorder, changes in child development caused by mistreatment, adolescents, depression, conduct disorder and comorbidities.



SERGIO B. ANDREOLI, graduated in Medicine at the Federal University of São Paulo (1983), MSc (1993) and Ph.D. (1997) in Psychiatry and Medical Psychology at the Federal University of São Paulo. Postdoctoral University of Queensland, Australia (1999). He is adjunct professor at the Federal University of São Paulo,

professor at the Catholic University of Santos and director of the Center for Statistics and Methodology applied, Department of Psychiatry, Federal University of São Paulo. He has published 111 papers in journals, 14 book chapters and one book. He was supervisor one postdoctoral student, 8 PhD students, and 14 MSc students. Has experience in Public Health with emphasis in the following areas: mental health, mental disorders, health care, service evaluation and population survey.



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SERGIO BLAY, Graduation in Medicine at Escola Paulista de Medicina – Federal University of Medicine in São Paulo (1976), Medical Training and Residency in Psychiatry at Escola Paulista de Medicina – Federal University of Medicine (1978) and PhD in Psychiatry at Escola Paulista de Medicina – Federal University of

Medicine (1988). Currently is Associate Professor at the Department of Psychiatry at Escola Paulista de Medicina – Federal University of Medicine. The major focus of interests and research are: old age psychiatry, psychiatric epidemiology and treatment evaluation methods. Research investigator of the Brazilian National Council for Scientific and Technological Development (CNPq).



SHEILA C. CAETANO is a child and adolescent psychiatrist. She is an Assistant Professor at the Department of Psychiatry at the Faculty of Medicine, Federal University of São Paulo (UNIFESP) and the co-coordinator of the Child and Adolescent Psychiatry Unit (UPIA) at UNIFESP. Her main research areas are neuroimaging and

mood disorders. Her currently research interests focus on children and adolescents with and at risk for mood disorders and irritability.



SINTIA I. BELANGERO is a geneticist with experience of working with Human Genetics and Psychiatric Genetics. She is Adjunct Professor at the Department of Morphology and Genetics, Federal University of São Paulo (UNIFESP) and Coordinator of Genetic Area of Interdisciplinary Laboratory of Clinical Neuroscience

(LINC). Her research interests focus on mental disorders, especially in Schizophrenia, and diseases related to 22q11.2 deletion.



WAGNER SILVA RIBEIRO, psychologist with a PhD degree from the Federal University of São Paulo, Brazil (UNIFESP), Department of Psychiatry. As a researcher at the Department of Psychiatry of UNIFESP, I've been developing research on psychiatric epidemiology, violence and mental health services. After

completing a two-year research training at the Institute of Psychiatry (IoP), King's College London, I became an associate researcher at the IoP. After finishing my Ph.D. (May, 2011), I became a research fellow at the Section of Social Psychiatry, Department of Psychiatry of UNIFESP, in an International Scientific Consortium between the Federal University of São Paulo and University of Tromsø (Norway). Besides being the project coordinator in the Norway-Brazil Consortium, I've developed other research activities in the fields of epidemiology, service evaluation, research methods and systematic review, as well as teaching activities in the Post-Graduate Program at the Department of Psychiatry – UNIFESP, where I coordinate an English Spoken Journal club, which is the first discipline entirely delivered in English.



INTERNACIONAL STUDENTS OF THE Y-MIND ADVANCED SCIENCE SCHOOL



JULIA TEITELBAUM

POSITION TITLE:

Researcher and clinical psychiatrist,
Bipolar Disorders Program,
Neuroscience Institute, Favaloro
University, Buenos Aires, Argentina.

INSTITUTION AND LOCATION	DEGREE	FIELD OF STUDY
'Ramos J. Mejía' Hospital. Buenos Aires, Argentina	Psychiatrist	Psychiatry
Institute of Medical Research "Alfredo Lanari", University of Buenos Aires, Buenos Aires Argentina	Resident in Internal Medicine	Internal Medicine
Medical School, Buenos Aires University. Buenos Aires, Argentina	Medical Doctor	Medicine

BIO SKETCH:

I started Medical School at Buenos Aires University in 1997 and Graduated with Honors as a Medical Doctor at the age of 24. During my studies I made several rotations in Dublin and Barcelona. I completed first year Internal Medicine Residence at the "Alfredo Lanari Institute of Medical Investigations" in Buenos Aires.

After that I decided to dedicate myself to clinical research and completed an Advance Course in Biostatistics at the Epidemiological Studies Centre (National Academy of Medicine, Buenos Aires, Argentina). I finished my Residence in Psychiatry at the "J. M. Ramos Mejía Hospital" (Buenos Aires, Argentina). During the last year of my Residence I attended the Mood Disorders Program at Tufts Medical Centre (Boston, United States) under Nassir Ghaemi MD MPH supervision as an intern for two months (February to May, 2009).

After finishing my Residence I started my private practice and started working (and currently are) as a Clinical Researcher in Mood Disorders for the Neuroscience Institute at Favaloro University (Buenos Aires, Argentina) under the supervision of Sergio Strejilevich MD.

Likewise, I am currently involved as a Clinical Rater in the Clinical Trials Department at the Cognitive Neurology Institute (INECO. Buenos Aires, Argentina). Two years ago I was accepted as a postgraduate student at the Calculus Institute, School of Mathematics, Buenos Aires University. (Buenos Aires, Argentina) for a Specialization in Statistics for Health Professionals. Language wise, I am fluent in English and have basic level of Portuguese and French. To date, I have published 7 papers in refereed journals

SUMMARY PROJECT:

SUMMARY. Different antidepressants (AD) present different adverse events: at behavioral level, moral judgment, social and work functioning. Serotonin Selective Reuptake Inhibitors (SSRIs) and bupropion present different mechanism of action that may account for differences in emotional recognition and the aforementioned. This research aims to describe differences between these ADs

to better understand their mechanism of action and improve specific indication for each patient and development of new compounds.

BACKGROUND: More refined research on the manner in which AD modify EP would have practical applications for those being design and a deeper understanding of the mechanism of action of those already being used. Most of drugs used during treatment of affective episodes modify DA levels which regulates EP, and it accounts for qualitative differences between different AD. SSRIs, have an indirect antagonistic dopaminergic effect in cortical-subcortical circuitry, decreasing EP. Bupropion is the only noradrenalin and DA reuptake inhibition (IRDNA) augmenting dopaminergic neurotransmission at the nucleus accumbens and prefrontal cortex, without effect over serotonin. RELEVANCE FOR THE FIELD AD are different in their mechanisms of action, but there has been no reports regarding differences in its efficacy nor are specific indications for each one. Further knowledge regarding the mechanism of action through which they attain recovery, and differences regarding their effect at a behavioral level is vital.

MAIN OBJECTIVES: To Compare long-term impact of SSRIs and bupropion as far as emotional processing, moral judgment, social and work functioning and general adverse effects are concerned in patients who have reached clinical remission from major depressive episode.

METHODOLOGY: Transversal study, comparing measures of emotional processing, moral judgment, anhedonia, apathy, global functioning and adverse effects in patients under remission from a depressive episode. Procedure. -Clinical evaluation: YMRS, HAM-D, functioning status as reported by FAST, BDI II, MDQ, Apathy Inventory, Olivares Auto Assessment, UKU adapted version. -Cognitive Assessment. - Social Cognition Evaluation: Emotional Morphing Test & Emotional Inference.

EXPECTED RESULTS SSRIs and bupropion present with different profile of effects affecting emotion recognition, social cognition, moral judgment, social and work functioning, apathy, anhedonia and adverse effects that find their explanation in there different mechanism of action. Patients under treatment with SSRIs will present with higher prevalence of apathy, anhedonia, and emotional recognition impairment. Patients under treatment with bupropion will present less or no effects on the aforementioned areas due to the fact that this AD has no action over serotonin levels and thus, over EP. To the best of our knowledge, this will be the first research conducted in subjects under remission from a major depressive episode. Most studies on this area have involved healthy volunteers or have had a descriptive approach to these phenomena.

EXPECTED OUTCOMES: Differences in AD's mechanisms of action has not proven to influence their efficacy of both groups of AD's, but will account for differences in their adverse effects profile as well as in the patient's social and work functioning, EP, anhedonia and apathy.



INTERNACIONAL STUDENTS OF THE Y-MIND ADVANCED SCIENCE SCHOOL



JESSE YOUNG

POSITION TITLE:

- 1) Research Officer, Centre for Health Services Research, The University of Western Australia
- 2) Adjunct Research Officer, National Drug Research Institute, Curtin University

INSTITUTION AND LOCATION	DEGREE	FIELD OF STUDY
The University of Victoria (Victoria, British Columbia, Canada)	Bachelor of Science (BSc.)	Major Psychology/ Minor Biology
The University of Western Australia (Perth, Australia)	Masters of Public Health (MPH)	Epidemiology/ Biostatistics

BIO SKETCH:

Mr. Jesse Young is Canadian National who commenced his academic studies at The University of Victoria (Canada) where he completed his Bachelor of Science (BSc.) degree graduating with Distinction, Majoring in Psychology with a Minor in Biology. After completing his undergraduate degree, Mr. Young began his research career as a Research Assistant at the Centre of Addictions Research of British Columbia (Canada) where he contributed to several national mental health and substance use monitoring studies. He recently completed his Masters of Public Health at The University of Western Australia (UWA) graduating with High Distinction specialising in epidemiology, biostatistics, and linked-data analysis. As an early career researcher, Mr. Young is currently employed as a Research Officer at the Centre for Health Services Research at UWA where he is examining the health outcomes of prisoner subpopulations utilising a mixed methods, multijurisdictional approach. Mr. Young also currently holds an Adjunct Research Officer position at the National Drug Research Institute at Curtin University, a World Health Organisation Collaborating Centre for the prevention of alcohol and drug abuse, located in Perth, Australia and is a member of the International ADHD and Substance Use Disorder Prevalence (IASP) Research Group coordinated by the Trimbos Institute located in Utrecht, The Netherlands. In his previous research positions at the National Drug Research Institute and the Centre for Addictions Research of British Columbia, Mr. Young has contributed to multiple national and international research studies during his five-years of professional experience in the mental health and addictions research field. His primary research interests include the epidemiological analysis of substance use disorders, investigating the comorbid relationship between substance use disorders and other mental health disorders, offender health, and examining the effect of social supply networks on substance use.

SUMMARY PROJECT:

DOES ATTENTION DEFICIT HYPERACTIVITY DISORDER (ADHD) AMONG DEPENDENT SUBSTANCE USERS INCREASE RISK-TAKING BEHAVIOUR?

Evidence has implicated ADHD as a pronounced risk factor in the development of substance use disorders (SUDs). Additionally, adult ADHD is overrepresented in SUD populations and has been associated with a variety of risk-taking

behaviours suggesting an inflated public health burden experienced due to this mental health comorbidity. However, currently there is a paucity of empirical evidence regarding the outcomes of concurrent adult ADHD and SUD. This study aimed to conduct an epidemiological analysis of comorbid adult ADHD in substance dependent populations to assess the extent that ADHD is attributable to increased substance use, and elevated risk-taking behaviour in the criminal justice, HIV risk-taking, and driving domains. A 30-minute cross-sectional survey was administered to a convenience sample of 490 adults (≥ 18 years) receiving treatment for SUD in Australian metropolitan substance use treatment centres between 1st September 2010 and 31st August 2011. Associations between ADHD status and outcomes corresponding to a range of substance use behaviours, justice system contact, HIV risk-taking behaviour, and driving-related risk-taking behaviour were assessed. Overall, 55.4% ($n=271$) of participants screened positive for adult ADHD. ADHD status was associated with HIV risk-taking and driving-related risk-taking behaviours with no significant association found between ADHD status and criminal offending behaviour. The findings support the hypothesis that concurrent ADHD and SUD increases substance use severity, HIV risk-taking and driving-related risk-taking behaviours. Increased screening for adult ADHD and the implementation of integrated interventions for concurrent ADHD and SUD patients in substance use treatment centres is recommended. This research was coordinated by the National Drug Research Institute (Curtin University) and the National Drug and Alcohol Research Centre (University of New South Wales). This research received funding from a Curtin University Strategic Faculty Grant.



HELAL UDDIN AHMED

POSITION TITLE:

Assistant Professor, Department of Psychiatry, Kasturba Medical College, Manipal, Karnataka, India

INSTITUTION AND LOCATION	DEGREE	FIELD OF STUDY
Central Institute of Psychiatry, Kanke, Ranchi, Jharkhand, India	Medical Doctor	Psychiatry
Central Institute of Psychiatry, Kanke, Ranchi, Jharkhand, India	DPM	Psychiatry
Gauhati Medical College & Hospital, Guwahati, Assam, India	MBBS	Medicine

BIO SKETCH:

Samir Kumar Praharaj is currently working as Assistant Professor at Department of Psychiatry, Kasturba Medical College, Manipal, India. He has studied Medicine from Gauhati Medical College & Hospital, Guwahati, India and post-graduate diploma and degree in Psychiatry from Central Institute of Psychiatry, Ranchi, India. For his work on transcranial magnetic stimulation, he has received the Samuel Gershon Junior Investigator Award in 2008. He has also worked on



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life events and disability in psychiatric disorders. Currently, he is studying the role of life events in alcoholic relapse. He has authored and coauthored several articles in indexed journals.

SUMMARY PROJECT:

Alcoholics experiencing psychosocial stress following treatment are more likely to relapse than those not experiencing such stress. In this pilot study, the role of life events was examined in 20 patients presenting with alcoholic relapse. The median number of life events in past one year was 3 (IQR 2.75), which was higher than 2 stressful life events in past one year that are considered as threshold for producing mental illness. The number of undesirable life events was higher than desirable events and the most common life events reported included financial loss and large loan. The severity of alcohol dependence negatively correlated with age of onset of problem drinking ($r_s = 0.6$), and positively correlated with the degree of familial alcoholism ($r_s = 0.41$). However, neither the number of life events nor the perceived stress was associated with either the severity of alcohol dependence or the degree of familial alcoholism. As the sample size was small in this pilot study, larger sample would provide further information regarding the nature and temporal relationship of the stressful life events in the relapse of patients with alcohol dependence.



ZORNITSA KALIBATSEVA

POSITION TITLE:

Ph.D. Student in Clinical Psychology
Professor of Psychology
Counseling Psychologist

INSTITUTION AND LOCATION	DEGREE	YEARS(S)	FIELD OF STUDY
Kenyon College; Gambier, OH	Bachelor	5/2008	Psychology
Michigan State University; East Lansing, MI	Master	5/2011	Clinical Psychology
Michigan State University; East Lansing, MI	Ph.D.	5/2015	Clinical Psychology

BIO SKETCH:

I am currently a fourth-year doctoral student in the Clinical Psychology program at Michigan State University. Over the last five years, I have been pursuing a program of research on cross-cultural psychopathology. In particular, I have been interested in advancing areas of mental health research that have been neglected by the mainstream in two fields: examining ethnic/racial minority mental health in the U.S. and examining mental health outside of the U.S. In addition, I am also committed to examining how culture influences psychopathology; how psychological disorders are expressed, experienced, diagnosed, and treated among ethnic/racial minorities in the U.S. and in

other countries. My other interests include successfully adapting existing psychological prevention and intervention programs to meet the needs of populations that underutilize services.

I have been involved in various research projects that examine cross-cultural psychopathology. In 2009, I worked as a research assistant on a study that examined barriers and facilitators of treatment for depression among Latinos (Uebelacker, Marootian, et al., 2011). Subsequently, I collaborated with my advisor, Dr. Frederick Leong on a few research papers that examined depression among Asian Americans (Kalibatseva & Leong, 2011), culture and depression (Leong, Kalibatseva & Molchanova, 2012), cross-cultural measurement equivalence of the assessment of depression symptoms among Asian Americans and European Americans (Kalibatseva, Leong, & Schmitt, under review), cross-cultural barriers to mental health services among racial and ethnic minorities (Leong & Kalibatseva, 2011a), cultural adaptation of psychotherapy to increase its effectiveness for Asian Americans (Leong & Kalibatseva, 2011b), and specific cultural adaptations that make depression treatments culturally sensitive for racial and ethnic minorities (Kalibatseva & Leong, under review). My long-term research career goals are to identify and eliminate barriers to receiving mental health services and to make these services (i.e., prevention, therapy, assessment) more culturally appropriate for racial and ethnic minorities.

SUMMARY PROJECT:

CULTURALLY-SPECIFIC PROTECTIVE AND RISK FACTORS FOR DEPRESSION, ANXIETY, AND SUBSTANCE ABUSE AMONG LATINO AND ASIAN AMERICAN IMMIGRANTS

Zornitsa Kalibatseva, M.A., Frederick T. L. Leong, Ph.D., and Yong S. Park, Ph.D.

This project examines culturally-specific protective and risk factors for depression, anxiety, and substance abuse among Latino and Asian American immigrants using the National Latino and Asian American study, a nationally representative community sample. The development of prevention and intervention programs largely relies on research that identifies protective and risk factors for specific populations. In this study, we examined protective factors, such as social networking, ethnic identity, family cohesion, and bilingualism that may prevent the development of mental disorders among immigrants. Additionally, we examined risk factors, such as limited language proficiency, discrimination, acculturative stress, family conflict, and low socio-economic status (SES), which may increase the threat of mental disorders among the same populations.

Among Latino/a immigrants, the results indicated that low levels of social network and ethnic identity and high levels of discrimination and family conflict were risk factors for depressive and substance-related disorders. The only risk factors associated with anxiety disorders was high discrimination and acculturative stress. High family cohesion, low discrimination, and low family conflict served as protective factors against some of the disorders. Language proficiency and income were not associated with the occurrence of mental illness among Latino/a immigrants. Among Asian American immigrants, low levels of social network and family cohesion and high levels of family conflict were associated with an anxiety disorder in the past 12 months. Being bilingual, experiencing low levels of acculturative stress, discrimination and family conflict were associated with lower prevalence of depressive disorders among Asian American immigrants. Finally, substance-related disorders were



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associated with low levels of ethnic identity. A careful consideration and a thorough assessment of the psychological risk and protective factors unique to the immigrant's experience are necessary in order to provide culturally competent mental health services.



YIFENG WEI

POSITION TITLE:

PhD Student; Researcher

INSTITUTION AND LOCATION	DEGREE	FIELD OF STUDY
Hunan Normal University, China	Bachelor	English Literature
Faculty of Education, York University, Canada	Master	Educational Psychology
Dalhousie University, Canada	PhD	Psychology, Psychiatry and Epidemiology

BIO SKETCH:

Yifeng Wei is a researcher and school mental health coordinator of Sun Life Financial Chair in Adolescent Mental Health team (the Chair) at the IWK Health Centre and Dalhousie University. Her research interests are knowledge translation in school mental health and youth mental health, with specific focuses on promoting mental health literacy in schools. She is currently on the third year of her PhD program in school mental health and is the recipient of Canadian Institutes of Health Research Doctoral Research Award in 2011.

As a researcher and school mental health coordinator of the Chair team, Yifeng has played a key role in the school mental health research and program development activities and has made significant contributions to the work of the Chair team. This includes developing, implementing, and researching mental health programs for youth in the secondary school setting; initiating and coordinating new school mental health projects with schools; and working with government agencies to facilitate system change to address youth mental health needs. Her responsibilities have also extended to other knowledge translation and health promotion activities, such as developing and managing international school mental health projects, funding application development and supervision of junior team members.

As a result of her work in school mental health, Yifeng has co-authored and published ten academic papers, and presented at the local, regional, national, and international level at scientific meetings and program development forums.

SUMMARY PROJECT:

This project will advance the work in school mental health literacy by examining and developing the constructs of mental health literacy, and developing and validating a mental health literacy scale to evaluate the effectiveness of school-based mental health interventions in secondary schools.

There are two stages involved to conduct the research. The first stage is to examine and develop mental health literacy constructs, and to develop a mental health literacy scale for adolescents. Theories in health literacy (including mental health literacy), health education, and health promotion will be reviewed to form the draft constructs of mental healthy literacy. Available measurement tools in mental health literacy will be identified and analyzed for inform the construct development. Following this, a Delphi consensus approach will be used to finalize the definition and the constructs/items of the measurement tool.

The second stage is to test the measurement tool on its reliability and validity in a sample of mental health professionals, educators and adolescents. Two types of reliability will be examined, including test-retest reliability and Cronbach's alpha. This research will also investigate the validity of the scale. The content validity will be built into the measurement tool development from the outset through the choice of appropriate items. Furthermore, the construct validity will be established by testing the hypothesis: Mental health literacy level should be higher among mental health professionals than the general public, e.g. youth and educators. Therefore, their mean scores on the test scales should be significantly higher than those of youth and educators.

This research will establish the first mental health literacy scale of its kind in the field.



DANIELLE S. CHA

POSITION TITLE:

Graduate Student: Master's Candidate

INSTITUTION AND LOCATION	DEGREE	FIELD OF STUDY
University of Toronto, Toronto	Honours Bachelor of Science	Health and Disease (Major)/ Psychology (Major)/ Physiology (Minor)
University of Toronto, Toronto	M.Sc - Medical Science (in Progress)	Medical Science (Psychiatry)

BIO SKETCH:

Danielle S. Cha is currently a Graduate Student under the supervision of Dr. Roger S. McIntyre at the Mood Disorders Psychopharmacology Unit, completing her Master's in Medical Science at the Institute of Medical Science, University of Toronto, Toronto, Canada.

Danielle has been involved in multiple research endeavours at the Mood Disorders Psychopharmacology Unit under Dr. McIntyre's supervision, which have primarily aimed to characterize the association between mood disorders and medical comorbidity. This research involves elucidating the impact of medical comorbidity on the course and treatment of mood disorders, and the effect of glucose homeostasis on neurocognition.

The primary aim of the project to be presented to the Sao Paulo School of



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Advanced Science for the Prevention of Mental Disorders is to provide the rationale for hypothesizing that adjunctive intranasal insulin will exert an antidepressant effect when compared to placebo in adults with treatment resistant Major Depressive Disorder (MDD). Three secondary aims of the study include: (1) determine whether adjunctive intranasal insulin will alter emotional processing; (2) determine whether early changes in emotional processing (i.e., after a single dose of 40 IU intranasal insulin) predicts symptomatic improvement at endpoint; and (3) to determine the effect of intranasal insulin on neurocognitive performance (e.g., learning and memory) in individuals with MDD insufficiently responsive to antidepressant therapy.

SUMMARY PROJECT:

Background: The interaction between emotional stimuli and cognitive processes (e.g. automatic processing, attention, memory and learning) is defined as affective cognition, which describes the interface at which emotional and cognitive processes are integrated to generate behaviour. Impairments associated with the cognitive affective interface are recognized as a core and specific feature of mood disorders, particularly major depressive disorder (MDD). For example, it has been amply documented that individuals with MDD are biased toward negative emotional stimuli (independent of medication status). Notwithstanding, pharmacological interventions have been reported to influence the pre-attentive stage and “shift” emotional processing to reduce/eliminate negative affective bias despite the absence of change in subjective ratings of mood and/or anxiety.

Rationale: Available evidence indicates that the acute administration of intranasal insulin enhances cognition in individuals with Alzheimer’s disease, mild cognitive impairment, and healthy subjects. Improved mood and decreased hypothalamic-pituitary-adrenal (HPA) axis activity have been reported following intranasal insulin treatment in both healthy, normal weight, and obese subjects. Hence, reduced central nervous insulin sensitivity may represent a pathophysiological link between obesity, peripheral insulin resistance, cognitive dysfunction and mood disorders. We aim to evaluate the acute and subchronic effects of intranasal insulin administration in persons with MDD on overall mood/emotional processing and neurocognitive outcomes.



PAUL KUDLOW

POSITION TITLE:

Medical Student, Mood Disorders Psychopharmacology Unit, University Health Network, Toronto, Ontario; Medical Student, Schulich School of Medicine and Dentistry, Western University, London, Ontario

INSTITUTION AND LOCATION	DEGREE	FIELD OF STUDY
Schulich School of Medicine and Dentistry, Western University, London, Ontario, Canada	Doctor of Medicine (anticipated)	Medicine
Faculty of Science, Faculty of Management, McGill University, Montreal, Quebec, Canada	Bachelor of Science	Physiology, Management

BIO SKETCH:

Paul Kudlow is currently a fourth year medical student at the Schulich School of Medicine and Dentistry, at Western University. He is originally from Toronto, Canada and completed a Bachelor of Science with a double major in Physiology and Management. Paul will complete his medical degree in April 2013, and plans to begin residency training in Psychiatry at the University of Toronto starting July 2013.

Paul has completed substantial academic work in psychiatry and neuroscience. Most recently, he was first author on a paper, published in the Canadian Journal of Psychiatry that examined the clinical utility of early symptomatic relief while on antidepressant therapy. Paul has also been featured in the New England Journal of Medicine for his work on the functional outcomes of survivors of the Acute Respiratory Distress Syndrome. Paul has published several other articles in high impact journals on a variety of subjects and currently works as a freelance news writer for the Canadian Medical Association Journal.

Paul’s current interests lie in the interactions between the nervous and immune systems, and how this may relate to the possible etiology of psychiatric and metabolic diseases. His current research efforts focus on sleep architecture variation and its effects on the risk of developing mood and metabolic disturbances. He is actively involved in numerous other research projects under the supervision of Dr. Roger McIntyre, as well as other leading academic psychiatrists across Canada and the United States.

Aside from Paul’s passion for academic psychiatry, he also has a keen interest for health informatics. He is currently the Co-Founder and President of trendMD (www.trendmd.com), a medical search/trending engine that delivers personalized, high-impact research articles to healthcare practitioners. He has built a start-up team in Toronto, Canada and is in the process of securing first-round venture capital funding. In his leisure time, Paul loves to travel and try exotic food. He has climbed Mount Kilimanjaro (Tanzania), Mount Meru (Tanzania), Mount Urus (Peru), and Everest Base Camp (Nepal).

SUMMARY PROJECT:

SLEEP ARCHITECTURE VARIATION: A MEDIATOR OF METABOLIC DISTURBANCE IN INDIVIDUALS WITH MAJOR DEPRESSIVE DISORDER

*Kudlow PA1, Cha DS2, Lam RW3, McIntyre RS4

1 Medical Student, Mood Disorders Psychopharmacology Unit, University Health Network, Toronto, Ontario; Medical Student, Schulich School of Medicine and Dentistry, Western University, London, Ontario

2 Student, Mood Disorders Psychopharmacology Unit, University Health Network, Toronto, Ontario; Student, Institute of Medical Science, University of Toronto, Toronto, Ontario

3 Professor and Head, Mood and Anxiety Disorders Program, Department of Psychiatry, University of British Columbia (UBC) and Mood Disorders Centre of Excellence, UBC Hospital, Vancouver, Canada

4 Professor of Psychiatry and Pharmacology, University of Toronto, Toronto, Ontario; Head, Mood Disorders Psychopharmacology Unit, University Health Network, Toronto, Ontario.

Background: Significant proportions of individuals diagnosed with major depressive disorder (MDD) have co-morbid metabolic disturbances (i.e. obesity, type 2 diabetes mellitus (T2DM), hypertension, and/or dyslipidemia) and vice versa. Accumulating evidence suggests that common pathophysiologic pathways, such as a chronic, low-grade pro-inflammatory state, mediate this



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frequent co-occurrence. However, it remains unclear what traits precede the onset, and increase the risk of these pathologic states. The aim of this review is to evaluate the evidentiary base supporting the hypothesis that the increased hazard for metabolic disturbance in MDD subpopulations (and vice versa) is mediated, in part, by endophenotypic variations in sleep architecture.

Methods: We conducted a PubMed search of all English-language articles with the following search terms: sleep disturbance, circadian rhythm, inflammation, metabolic syndrome, obesity, MDD, mood disorder, prodrome, T2DM, cytokine, interleukin, hypertension, dyslipidemia, hypercholesterolemia.

Results: Longitudinal and meta-analysis data indicate that for a subpopulation of individuals, specific variations in sleep architecture (i.e. decreased slow wave sleep [SWS], increased rapid-eye movement [REM] density) precede the onset of depressive symptoms. The same sleep architecture variations are also associated with obesity, T2DM, and hypertension. Decreased SWS and increased REM density is correlated with an increase in pro-inflammatory cytokines (e.g. interleukin-6, tumour necrosis factor, etc.). This proinflammatory state has been independently shown to be associated with MDD and metabolic disturbances.

Conclusions: Taken together, this review suggests that sleep architecture variation of increased REM density and decreased SWS may be an endophenotypic trait that serves to identify a subpopulation at increased risk of depressive symptomatology and metabolic disturbances. Future research is needed to discern the predictive value, sensitivity and specificity of using sleep architecture variation as a biomarker for MDD and metabolic disturbances. Validation of this marker would have broad clinical implications, such primary, secondary, and tertiary preventative health strategies.



WALTER SWARDFANGER

POSITION TITLE:

Post-Doctoral Fellow
(Neuropharmacology)

INSTITUTION AND LOCATION	DEGREE	FIELD OF STUDY
University of Waterloo, Ontario, Canada	Bachelor of Science	Biochemistry
University of Toronto, Ontario, Canada	Master of Science	Pharmacology
University of Toronto, Ontario, Canada	PH.D.	Clinical Psychopharmacology

BIO SKETCH:

Currently, I am a post-doctoral fellow at Sunnybrook Health Sciences Centre in Toronto in the Brain Sciences Program. My research focuses on the relationship between vascular pathology and cognitive symptoms in later life. As a clinical pharmacologist, I have a particular interest in the neuroimmunological intersection between neurodegenerative and cardiometabolic disorders as an avenue to explore biomarkers, vulnerability factors and potential treatments.

The present study examines how genetic vulnerability factors interact with cerebrovascular disease, depression and physical activity to predict hippocampal volume and cognitive performance in patients with coronary artery disease. My previous work in this population has provided pertinent background, identifying some of the relevant phenomenology and biomarkers.

SUMMARY PROJECT:

Determinants of susceptibility to cerebrovascular disease

1,2,3Krista L. Lancôt, 1,2,3Sandra E. Black, 1,2Bradley J. MacIntosh, 1,2Nathan Herrmann, 4Paul R. Albert, 1,2,3Paul I. Oh, 1,2Alexander Kiss

1Sunnybrook Research Institute, 2University of Toronto, 3Toronto Rehabilitation Institute, 4Ottawa Health Research Institute (Neuroscience)

Post-doctoral funding: Toronto Rehabilitation Institute; Centre for Stroke Recovery.

Operating funding: Canadian Institutes of Health Research; Centre for Stroke Recovery; Physicians Services Incorporated Foundation

Cerebrovascular disease can lead to subtle ischemia and neuroinflammation, which may initiate neurodegenerative cascades and precipitate mood and cognitive symptoms in susceptible individuals. Components of neural risk can be attributed to both genetic and behavioral factors. We aim to better understand cognitive vulnerability to subtle vascular brain pathology (i.e. white matter hyperintensities [WMH]) in patients with coronary artery disease. This study will quantify brain atrophy and compare it to WMH volumes of in subgroups of patients defined by susceptibility genotypes (e.g. the brain derived neurotrophic factor [BDNF] val66met polymorphism). We will determine which brain structures show increased volume, microstructural integrity and blood flow in patients with greater cardiopulmonary fitness and determine if these associations are uniform across BDNF genotypes. We will also examine whether the BDNF genotype interacts with depression to predict poorer cognitive function.

In our preliminary samples, cerebrovascular disease was associated with loss of hippocampal volume in patients carrying at least one copy of the met allele of the BDNF polymorphism, but not in val/val subjects (n=40). BDNF seemed to couple cardiopulmonary fitness to hippocampal volume (n=40) and verbal memory performance (n=156), since these relationships were absent in met carriers. Depression interacted with the BDNF genotype such that depressed but not non-depressed patients carrying the met allele showed poorer verbal memory performance (F=4.064, p=.046, n=141). In conclusion, BDNF-mediated neural resilience may determine cognitive relationships with cerebrovascular disease, fitness and depression in later life.



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ANDRÉS HERANE

POSITION TITLE:

Phd student in Neurobiology of mood disorders: King's college of London (2011-2015)

INSTITUTION AND LOCATION	DEGREE	FIELD OF STUDY
Pontificia Universidad Católica de Chile	B.Sc.	
Pontificia Universidad Católica de Chile	B.Sc.	Medicine
King's College, London, England	Msc	Psychiatry

BIO SKETCH:

I started my undergraduate studies in 1996 at The Pontifical Catholic University of Chile. There I obtained my Bachelor degree in Sciences. After achieving one of the best grades in that school, I was allowed to relocate in the career of Medicine at the same University, which is regarded by numerous researches as the best in Chile.

Immediately after graduating as an MD at the Catholic University, I entered a national contest for Psychiatric residency programmes and I was accepted to the Fellowship at the Clinical Psychiatry Unit of the University of Chile, considered to be the top university in Chile in that field of knowledge.

During my Psychiatric Resident fellowship, I was invited to participate as a Young Psychiatrist at meetings in several Chilean and European Congresses. Afterward, I was invited to participate at the 16th European Congress of Psychiatry in Nice, France in 2008, where I gave an oral presentation entitled "Comparison of Functional Alterations on SPECTS of Patients with Depression and with Alcohol Comorbidity". This paper was well received by the Psychiatric committee; it was based on my experience a rotation in the Nuclear Medicine Department at the Catholic University of Chile. Due to this work in 2010 I was invited as International guest speaker to the Psychiatry Congress at San Juan, Puerto Rico.

To broaden my knowledge in Psychiatry and gain clinical experience, I was accepted in the externship program in Psychiatry at the University of Barcelona in 2005. There I took part in a workshop on Bipolar Patients together with Drs. Vieta and Dr. Scott.

The study of mood disorders has been my main focus of interest throughout my fellowship as well as in my subsequent practice; this is clear that most of my research projects and papers have been oriented to that specific field.

In fact, my ex team in Chile got an award for the best scientific paper presented at the 2009 Chilean Psychiatric Congress with "Clinical and genetic comparative study on Borderline Personality Disorder and Bipolar II Patients".

Two years months ago, by the means of the Chilean government awarded me a grand which will allow me to continue my postgraduate studies doing a PhD in Psychological Medicine and Psychiatry at King's College, London.

The Institute of Psychiatry at King's College of London has a tradition of

excellence and is recognized around the world.(number one in citations in this field around the world)

This Phd in neurobiology of mood disorders has given me the opportunity to find answers to many of the questions I have had for years. My programme blends every aspect of Psychiatry, enabling a student to expand his/her vision of the human being and to explore the cutting edge in what regards the roots of psychiatric illnesses with the latest intellectual and scientific tools.

I have already started my new project utilises a novel method of assessment of long-term stress and its relationship to several affective and related disorders.

I proposed to obtain hair cortisol samples from will be measured . These will be prospectively cross correlated with salivary cortisol measures to validate hair cortisol as an accurate measure of long-term activity of HPA activity. In doing so, I will also wish to clarify biological distinctions between subtypes of affective disorders.

This work will have a specific relevance to latin america as the intention is also to collaborate with his previous colleagues in Chile as well as other colleagues in Brazil.

SUMMARY PROJECT:

HAIR CORTISOL AS A BIOMARKER FOR PSYCHIATRIC ILLNESSES

The hypothalamic–pituitary–adrenal axis (HPA) consists of a chain of stimulatory hormones and feedback loops and is under control of the higher cerebral centres that determine their overall activity (Papadopoulos and Cleare, 2011). One of those hormones is cortisol which regulates a wide range of bodily functions including metabolism, immunity, neuronal survival, neurogenesis (Dettenborn et al., 2011) and stress (Chrousos, 2009) Acute stress has been associated with an activation of the HPA axis resulting in an increased release of cortisol from the adrenal glands (Selye, 1936). There are also some psychiatric illnesses related to an abnormal response in terms of cortisol concentration but with some controversy about the direction of that response. Mostly, that disagreement comes from the fact that different specimens were used to assess chronic cortisol concentration. Until now, there have been many different matrices to assess levels of cortisol such as, blood, urine, and saliva. However they are just useful to obtain a picture of the level of cortisol in real time; in other words, a good measure to reflect acute concentration, but they are not adequate matrices to obtain a measure of chronic cortisol levels. Therefore, there has been a critical need for the establishment of a biomarker of cortisol that accurately measures its intensity and course over time due to the association between abnormal cortisol production and mental health problems. In this review, hair cortisol, a novel specimen, will be presented. This one would have the ability to reflect chronic cortisol concentration, as a result obtaining a true relationship with stress events and related psychiatric conditions. This new biomarker promises then to be a better tool to solve many questions related to HPA axis dysregulations observed in psychiatric diseases and may help to identify appropriate and successful management strategies. This article reviews and updates views of stress and stress-related disorders and their implications of HPA axis and cortisol levels. In addition, the development, current status, advantages, limitations and main findings in hair cortisol in relation to some psychiatric diseases such as Post traumatic stress disorder (PTSD), Chronic fatigue syndrome (CFS), Mayor depressive disorder (MDD), Bipolar disorder (BD).



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VANIA MARTÍNEZ NAHUEL

POSITION TITLE:

Assistant Professor, Centro de Medicina Reproductiva y Desarrollo Integral del Adolescente-CEMERA, Faculty of Medicine, Universidad de Chile

INSTITUTION AND LOCATION	DEGREE	FIELD OF STUDY
Pontificia Universidad Católica de Chile – Santiago, Chile	Licentiate in Medicine	Medicine
Pontificia Universidad Católica de Chile – Santiago, Chile	M.D. – Medical Doctor – Surgeon	Medicine
Universidad de Chile, Santiago, Chile	Child and Adolescent Psychiatrist	Child and Adolescent Psychiatry
Instituto Chileno de Terapia Familiar and Ackerman Institute for the Family of New York – Santiago, Chile	Family and Couple Therapist	Family and Couple Psychotherapy
Universidad Diego Portales – Santiago, Chile	Master in Clinical Psychology	Clinical psychology
Pontificia Universidad Católica de Chile – Santiago, Chile	Master in Psychotherapy	Research in Psychotherapy
Ruprecht-Karls-Universität Heidelberg, Germany and Pontificia Universidad Católica de Chile – Santiago, Chile	Dr. Med. – Doctor in Psychotherapy	Research in Psychotherapy
Universidad de Chile – Santiago, Chile	Postdoctoral Training	Research in Psychotherapy

BIO SKETCH:

Vania Martínez is a Child and Adolescent Psychiatrist from the Universidad de Chile, currently working in the Faculty of Medicine of the Universidad de Chile in the Center of Reproductive Medicine and Comprehensive Development for Adolescents (CEMERA). She has earned the following degrees: Doctorate in Psychotherapy from the Pontificia Universidad Católica in Chile, Doctorate of Medicine from the University of Heidelberg in Germany (International Doctorate Program in Psychotherapy), Masters in Psychotherapy from the Pontificia Universidad Católica de Chile, and Masters in Clinical Psychology from the Universidad Diego Portales in Chile. Additionally, she has a diploma in Family Therapy from the Chilean Institute of Family Therapy and is a member of the Chilean Society of Pediatrics, the Chilean Society of Child and Adolescent Psychiatry and Neurology, and the Society for Psychotherapy Research. Her investigations focus on adolescent depression, quality of life in adolescents, and adolescent sexuality.

SUMMARY PROJECT:

QUALITATIVE ASSESSMENT OF A SCHOOL-BASED INTERVENTION TO PREVENT ADOLESCENT DEPRESSION IN LOW-INCOME COMMUNITIES OF SANTIAGO, CHILE. THE STUDY CONSISTED OF A QUALITATIVE ASSESSMENT OF THE INTERVENTION “YO PIENSO, YO SIENTO, YO ACTÚO” (“I THINK, I FEEL, I DO”) This program is intended to prevent depression in adolescents and is based on the cognitive-behavioral approach. The 11-session intervention was carried out in four classes, with 163 students, of primero medio (ninth grade) in two low-income public schools in Santiago, Chile. The objective of the study was to understand the students’ perceptions of the program and their suggestions for improvements, in order to gather input for future changes to the workshop. The methodology included conducting focus groups in each class, focusing on the evaluation of the main components of the workshop. The principal results were that participants gave an overall positive assessment of the workshop and found group work methodology successful. They also noted the need for the use of more disciplinary control during the workshops and emphasized the importance of establishing rapport with the facilitators. The students were most interested in the sessions related to problem solving techniques. The workshop environment was found to generate positive communication and improve interpersonal relationships within the classes. In conclusion, the workshop was well accepted by the participants, and for future school-based programs, it is important to strengthen disciplinary management used during the sessions and ensure the quality of the relationship with the facilitators.



JANNI NICLASSEN

POSITION TITLE:

Ph.D. fellow in Psychology, University of Copenhagen, Denmark

INSTITUTION AND LOCATION	DEGREE	FIELD OF STUDY
University College London, UK	B.Sc.	Psychology
University of Copenhagen	M.Sc.	Psychology
Lund University, Sweden	M.A.	Asian studies
University of Copenhagen	Ph.D.	Psychology/epidemiology

BIO SKETCH:

My name is Janni Niclasen and I am a psychologist and Ph.D. fellow from the University of Copenhagen, Denmark. The title of my Ph.D. project is ‘Prenatal Exposure to Alcohol and Neurobehavioural Development in Childhood’. I am working with data from the large scale Danish National Birth Cohort (DNBC) and register data from Statistics Denmark. I have thus far submitted one article on the topic ‘Alcohol and neurobehavioural development’ and I have written one feature article for the newspaper. Apart from this work I am also very



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interested in psychometrics. I have thus far published two articles looking at the psychometric properties of the Danish version of the Strengths and Difficulties Questionnaire (SDQ). As part of the 11-year DNBC follow-up I am in charge of a collection of teacher SDQ questionnaires. Thus far app. 13.000 questionnaires have been collected, but we expect approximately 25.000 questionnaires by the end of the data collection period. Before starting my Ph.D. I worked as a research assistant on a large-scale project where I neuropsychologically tested 300 children. Apart from my research I have taught statistics for psychology students and I am currently supervising a Ph.D. projects at faculties of Health Science looking at fish oil intervention in breastfeeding period and behavioural and emotional development at age 13. I am also involved in other projects looking at the psychometric properties of different assessment tools and questionnaires. I am using the statistical programs SPSS, MPlus and SAS. After finishing my Ph.D. I will continue the work within the field of preventive mental health among children and adolescents and I will also continue the work within the field of psychometrics. I currently have funding for two years post doc. work.

SUMMARY PROJECT:

Objective: To investigate possible associations between prenatal exposure to binge drinking and cumulated alcohol intake in pregnancy and behavioural and emotional development at age seven.

Method: Data from the Danish National Birth Cohort. Exposure variables: binge drinking and cumulated alcohol exposure from three interviews gathered at approximately weeks 16 and 30 of pregnancy and 6 months post-partum. Outcome measures: The Strengths and Difficulties Questionnaire (SDQ) used as continuous externalising and internalising scores and as above cut-off hyperactivity/inattention, conduct, emotional and peer problems scores. Inclusion criteria: information on alcohol exposure from three interviews, SDQ scores and being term-born (N=37,152).

Results: controlling for relevant confounders and mediators small positive associations were observed between binge drinking and internalising and externalising scores (relative change in median: 1.01-1.07) and hyperactivity/inattention, conduct, emotional and peer problem scores for boys (OR: 1.00-1.28) and externalising scores (relative change in median: 1.02-1.05) and hyperactivity/inattention and emotional scores for girls (OR: 0.99-1.14). No associations with cumulated alcohol exposure were observed.

Conclusions: large differences in background characteristics were observed between the cumulated alcohol exposure groups, leaving the interpretations with great uncertainty. The consequences of these large differences in background characteristics will be discussed. Exposure to binge drinking is associated with behavioural and emotional development measured at age seven.



DITTE LAMMERS VERNAL

POSITION TITLE:

Ph.D. student and Clinical psychologist

INSTITUTION AND LOCATION	DEGREE	YEAR(S)	FIELD OF STUDY
Aarhus University	MA	2003	Clinical psychology
Child- and Adolescent Psychiatry, North Denmark Region, Denmark	PhD Student	2010-2016	Psychiatry research

BIO SKETCH:

Ditte Lammers Vernal is a psychologist and Ph.D student at the Child- and Adolescent Psychiatry Department, Aalborg, Denmark. Her Ph.D. project is a register study comparing the outcome of early onset schizophrenia with the outcome of schizophrenia with adult onset. Variables such as hospital admissions, bed days, morbidity, living situation and employment will be analyzed.

Ditte Lammers graduated from Aarhus University in 2003 and has been working in Child- and adolescent psychiatry since 2004. She is studying Ph.D. part time and working clinically part time. In 2012 she was on a 6 months clinical research rotation at the Zucker Hillside Hospital New York where she participated in 3 clinical research studies under the guidance of Dr. Christoph Correll. 5 publications are under way as a result of the research rotation (2 first-author, 3 co-authoring). Ditte Lammers is involved in writing national guidelines for assessment and treatment of psychoses and schizophrenia in children and adolescents. To date, she has authored or co-authored 2 publications.

SUMMARY PROJECT:

Schizophrenia is known to be one of the most severe mental disorders. Early onset before age 18 is associated with a particular poor prognosis. Research on the subject is however biased by small samples sizes and high attrition rate. In this project we will look at the long-term outcome of early onset schizophrenia and compare it to the outcome of adult onset schizophrenia by use of the Danish registers. All patients diagnosed in 1994-2007 in Danish psychiatry will be included in the analyses, thus providing a large and representative sample. The Danish registers provide an excellent opportunity to study outcome in a large patient sample. Regardless of whether the patients continue medical treatment and/or remain in contact with psychiatry, the registers will allow for follow-up on several parameters. Registers in Nordic countries are generally thought to provide a good basis for epidemiological studies. Also, very few patients with schizophrenia are diagnosed among private practitioners in Denmark so the total sample is expected to include close to 100% of diagnosed cases. Data on patients with this diagnosis can then be linked to other registers and thus we will have data on psychiatric outcome, suicide rates and morbidity and psychosocial outcomes in terms of living situation, education and social



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benefits. The main hypothesis is that patients with early onset schizophrenia will have a worse outcome, both by psychiatric outcome data and psychosocial parameters.

The project is not yet finalized. Baseline characteristics of the sample will be presented along with a more detailed description of the project.



MENAN A. RABIE

POSITION TITLE:

Assistant Professor of Psychiatry,
Institute of Psychiatry, Ain Shams
University.

INSTITUTION AND LOCATION	DEGREE	YEAR(S)	FIELD OF STUDY
Faculty of Medicine, Ain Shams University	Bachelor	1997	Medicine and Surgery
Faculty of Medicine, Ain Shams University	Master Degree	2001	Neuropsychiatry
Arab Council of Medical Specialities	Arab Board	2003	Psychiatry
Faculty of Medicine, Ain Shams University	Doctorate degree (MD)	2006	Psychiatry

BIO SKETCH:

Menan Rabie is currently an Assistant Professor of Psychiatry, Institute of Psychiatry, Ain Shams University. Her area of interest in her research involves psychiatric disorders in adolescent age group, mood disorders and cognitive functions. She obtained her Bachelor degree in Medicine and Surgery from Ain Shams University in 1997 and Masters degree and the MD degree in Neuropsychiatry from Ain Shams University in 2001, and 2006 (respectively). She has also been a staff member of the Institute of Psychiatry, Ain Shams University since 2001- currently. She is also an associate Member of The International Federation of Psychiatric Epidemiology (IFPE), since May 2009- currently. She is also a Member of the editorial board of the journal of Middle East Current Psychiatry, since December 2010- currently. She has authored or co-authored 11 publications in refereed journals, one chapter in an online book and one book "Cognition & neurological soft signs, bipolar state or trait markers"

SUMMARY PROJECT:

EGYPTIAN YOUTH PSYCHIATRIC ASSESSMENT STUDY (EYPAS)

The epidemiology of psychiatric disorders in Egyptian adolescence Adolescents and young adults are usually reluctant to visit psychiatrists. While, most mental health problems diagnosed in adulthood begin in adolescence. Half of lifetime diagnosable mental health disorders start by age 14; this number increases to three fourths by age 24.

This study will help in secondary and tertiary prevention of psychiatric disorders

of the youth. Early detection of psychiatric disorders may help minimizing the direct and indirect family losses, improve the quality of life of the Egyptian youth and the Egyptian family and society. Youth with better mental health are physically healthier, demonstrate more socially positive behaviors and engage in fewer risky behaviors. Adolescents (11-17 years old) and young adults (18-25 years old), of both genders, will be encouraged to share in the Egyptian Youth Psychiatric Assessment Study (EYPAS).

The student will be asked to answer some ID questions age, gender, etc. . .) and some screening questions.

Based on his answers, he will be then shuffled off to a psychiatrist, who subjects him to SCID-I for more accurate diagnosis.

Based on the student's assessment, and the diagnosis he is given, he is then sent off for treatment with an expert consultant.

As the first Egyptian study to assess adolescent psychiatric disorders, it will be of high significance to the epidemiological data base. If interesting to authority figures, it will help to develop better services for this special population. A step in the prevention of psychiatric disorders may be achieved through the recommendations of this study.



CORINDEEL SENOOR WIERS

POSITION TITLE:

PhD candidate Berlin School of Mind
and Brain

INSTITUTION AND LOCATION	DEGREE	YEAR(S)	FIELD OF STUDY
Dept. of Biology and Life Sciences, University of Amsterdam, Netherlands	B. Sc.	2004-2008	Psychobiology
Dept. of Psychology, University of Amsterdam, Netherlands	B.Sc.	2004-2008	Psychonomics
Dept. of Psychology, University of Amsterdam, Netherlands	M.Sc.	2008-2010	Psychonomics

BIO SKETCH:

Corinde Wiers is PhD Candidate at the Berlin School of Mind and Brain and Charité Medical School, Berlin, Germany, under the supervision of Prof. Dr. Felix Bermpohl, Prof. Dr. Dr. Henrik Walter.

She studied psychology and psychobiology at the University of Amsterdam and conducted a final Master's project on umami taste bud receptors at the University of Brighton, UK. After an internship on the neurobiological bases of alcohol and cocaine addiction at the Amsterdam Medical Centre, she applied at the Berlin School of Mind and Brain graduate school with an independent project on the neural basis of implicit biases in alcohol-dependent patients in alcohol addiction and the neural effects of "bias modification training" in these patients.



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Areas of interest are cognitive, neurobiological, genetic and epigenetic bases of psychiatric disorders – with alcohol addiction in particular –, clinical and neural effects of behavioral treatments, how neuroimaging techniques can be of use for treatment in psychiatry and conceptual shifts in mental health due to neuroscientific research.

SUMMARY PROJECT:

ALCOHOL ADDICTION: THE SPIRIT IS WILLING TO REFRAIN BUT THE FLESH IS WEAK FOR SPIRITS

A paradox in addictive behaviors is the continuation of drug use despite strong explicit desires to quit (Stacy and Wiers 2010). One important factor for high rates of relapse might be the degree to which drug cues trigger a motivational reaction to use again, which happens largely outside conscious awareness. For example, it has been shown that alcohol-dependent patients have the automatic tendency to faster approach than avoid alcohol stimuli, the so-called approach bias (ApB), which has been associated with higher relapse rates (Field & Cox, 2008). Since relatively little is known about the brain processes underlying this automatic tendency, the goal of this study is to identify the neural mechanisms underlying the ApB to alcohol.

Recently detoxified and treatment-seeking alcohol-dependent patients ($n=20$) and healthy controls ($n=17$) conducted an Approach Avoidance task (AAT) in a 3 Tesla Magnetic Resonance Imaging (MRI) scanner, in which participants pushed and pulled pictures of alcohol and softdrink projected on a screen, towards and away from the body with a joystick. All pictures were moreover rated for valence and arousal.

As hypothesized, although there were no group difference in explicit rating of the pictures, alcohol-dependent patients revealed higher ApB for alcohol than for softdrink cues, whereas the reverse was found for control subjects. Furthermore, activity in reward-related areas (e.g. the ventromedial prefrontal cortex (vmPFC), and right nucleus accumbens (NAcc)) was larger in alcohol-dependent patients compared to control subjects.

The data suggest that an overactive reward system is associated with the ApB to approach alcohol-related stimuli. The ApB has therapeutic potential: a behavioural Bias Modification Training (BMT) that selectively trains away ApB reduces relapse rates one year after training (Wiers et al, 2011) and, as preliminary results of our ongoing study suggest, also downregulates NAcc activity while watching alcohol cues.



LYDIA SOPHIA PÖHLAND

POSITION TITLE:

PhD Student, Charité Berlin

INSTITUTION AND LOCATION	DEGREE	FIELD OF STUDY
Freie Universität Berlin, Germany	Diploma	Psychology
Charité – Universitätsmedizin Berlin, Germany	Ongoing: PhD (Dr. rer.med.)	

BIO SKETCH:

Lydia Pöhland was born in 1986. She completed her diploma in psychology at the Freie Universität, Berlin in 2011. Since 2008, she is working as a research assistant in the multidisciplinary imaging group “Emotional Neuroscience” at the Department of Psychiatry and Psychotherapy, Charité – Universitätsmedizin Berlin, Germany. Within this working group, Ms. Pöhland also prepared her diploma thesis with the topic “Emotional face processing in relatives of schizophrenia patients”. Currently, she is working on her PhD thesis with the working title “Psychobiological influences on emotion experience” Her research interest focuses on intermediate phenotypes, emotion processing and related risk factors for the development of mood disorders.

SUMMARY PROJECT:

The project “Brain structural anomalies in high risk subjects for Major Depressive Disorder (MDD)” focuses on potential intermediate phenotypes for MDD. Although a heritable contribution to risk for MDD has been established and neural alterations in patients have been identified through neuroimaging, it is unclear which brain abnormalities are related to genetic risk. Therefore, 82 healthy first degree relatives of patients with MDD and 82 healthy controls underwent structural magnetic resonance imaging. Regional gray matter volumes were analysed via voxel-based morphometry (VBM). Whole-brain analysis revealed significant gray matter volume increases in the right amygdala and the left thalamus in first-degree relatives of patients with MDD. Furthermore, relatives showed significantly increased gray matter volume in anatomical structures found relevant to MDD in previous literature, specifically in bilateral hippocampus and amygdala as well as left dorsolateral prefrontal cortex (DLPFC). Further, the DLPFC volume correlated positively with depressive symptoms in the healthy relatives. The observed volume increases in healthy relatives may represent a resilience factor, as a majority of studies describes decreases in amygdala and thalamus volume in patients with MDD.

Data was collected within the multicenter study “MooDS” (Imaging genetics: Systematic Investigation of the Molecular Causes of Major Mood Disorders and Schizophrenia). Funding was provided by the German Federal Ministry of Education and Research.

Participants were examined at three scanner sites in Germany: Zentralinstitut für Seelische Gesundheit Mannheim, Department of Psychiatry and Psychotherapy, Universitätsklinikum Bonn and the Department of Psychiatry and Psychotherapy, Charité – Universitätsmedizin Berlin.



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SAMIR KUMAR PRAHARAJ

POSITION TITLE:

Assistant Professor, Department of Psychiatry, Kasturba Medical College, Manipal, Karnataka, India

INSTITUTION AND LOCATION	DEGREE	FIELD OF STUDY
Gauhati Medical College & Hospital, Guwahati, Assam, India	MBBS	Medicine
Central Institute of Psychiatry, Kanke, Ranchi, Jharkhand, India	DPM	Psychiatry
Central Institute of Psychiatry, Kanke, Ranchi, Jharkhand, India	MD	Psychiatry

BIO SKETCH:

Samir Kumar Praharaj is currently working as Assistant Professor at Department of Psychiatry, Kasturba Medical College, Manipal, India. He has studied Medicine from Gauhati Medical College & Hospital, Guwahati, India and post-graduate diploma and degree in Psychiatry from Central Institute of Psychiatry, Ranchi, India. For his work on transcranial magnetic stimulation, he has received the Samuel Gershon Junior Investigator Award in 2008. He has also worked on life events and disability in psychiatric disorders. Currently, he is studying the role of life events in alcoholic relapse. He has authored and co-authored several articles in indexed journals.

SUMMARY PROJECT:

Alcoholics experiencing psychosocial stress following treatment are more likely to relapse than those not experiencing such stress. In this pilot study, the role of life events was examined in 20 patients presenting with alcoholic relapse. The median number of life events in past one year was 3 (IQR 2.75), which was higher than 2 stressful life events in past one year that are considered as threshold for producing mental illness. The number of undesirable life events was higher than desirable events and the most common life events reported included financial loss and large loan. The severity of alcohol dependence negatively correlated with age of onset of problem drinking ($r_s = 0.6$), and positively correlated with the degree of familial alcoholism ($r_s = 0.41$). However, neither the number of life events nor the perceived stress was associated with either the severity of alcohol dependence or the degree of familial alcoholism. As the sample size was small in this pilot study, larger sample would provide further information regarding the nature and temporal relationship of the stressful life events in the relapse of patients with alcohol dependence.



ROHIT VERMA

POSITION TITLE:

• Licensed Psychiatrist, Medical Council of India, Delhi Medical Council.
• Senior Resident, Academic-Regular, Department of Psychiatry and Drug De-addiction, Post Graduate Institute of Medical Education and Research Dr Ram Manohar Lohia Hospital New Delhi India.

INSTITUTION AND LOCATION	DEGREE	YEAR(S)	FIELD OF STUDY
University of Rajasthan, Medical College, Kota, Rajasthan, India	Bachelor (MBBS)	1997-2002	Medicine and Surgery
All India Institute of Medical Sciences (AIIMS), New Delhi	Doctor (MD)	2005-2008	Psychiatry
Department of Psychiatry and Drug De-addiction, Govind Ballabh Pant Hospital, Maulana Azad Medical College and associated group of hospitals, New Delhi India	Senior Residency	2009-2010	Psychiatry
Department of Psychiatry and Drug De-addiction, Post Graduate Institute of Medical Education and Research Dr Ram Manohar Lohia Hospital New Delhi India	Senior Residency	2010-2012	Psychiatry
Department of Psychiatry and Drug De-addiction, Lady Hardinge Medical College and Smt. S. K. Hospital, New Delhi India	Assistant Professor	2013	Psychiatry

BIO SKETCH:

Since childhood, due to a fertile family medical background, my interest in patient care was soaring. Aspiring to focus on the improperly understood discipline having deeply rooted anarchy issues with cultural penetration, stigmatized and challenging, I chose psychiatry as my profession of expertise. Having completed M.D. in Psychiatry from the country's most prestigious medical institute (All India Institute of Medical Sciences), I did senior residency from other tertiary care institutes to understand the differences in terms of clinics and teaching, finding lacunae to improvise and further strengthen myself to deal effectively with the pertinent issues of the discipline. Clinical - Expertise in work, Experienced in conducting structured Lorazepam interviews (innovative work), Initiated use of Botulinum toxin as a measure to treat Clozapine-induced-sialorrhoea, Providing Modified Electro-convulsive therapy, Special interest in Psychotherapy (Behavioral/Cognitive), Ability to successfully handle outpatient clinics, inpatient ward, emergency as well as liaison duties and responsibilities. Worked as Trauma therapist for assessment and management of immigration



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survivors from Libiya, 2011. Received good conduct and appreciated for work at all working places. Participated in Community work associated with Tobacco Cessation clinics and mental health awareness National Trade fair at New Delhi. Teaching – Have been teaching undergraduate/postgraduate/post-doctoral fellows/nursing students, taking lectures, seminars, conferences, didactic and bed side teaching. Promoted for teaching as Lecturer for Training Programme for Tobacco use Intervention for Police personnel. Invited as Guest Lecturer for teaching Clinical Interviewing to Post Graduate Fellows in Geriatric Medicine, Indira Gandhi National Open University and Nursing students at PGIMER Dr Ram Manohar Lohia Hospital, New Delhi. Research – Thoroughly involved in research work evident from a plethora of publications (original studies, reviews as well as case reports) in psychiatry and neurology field. Presented work at various national and international academic bodies and have been accordingly awarded prizes and grants initiating during postgraduate training itself. Acknowledged in leading newspaper for the work done in adolescent population for emerging inhalant addiction and upcoming drug abuse problems as an occupational hazard. Administrative – Ensuring quality and smooth conduct of clinical services; Liaison with professionals from related disciplines such as clinical psychologists, psychiatric social workers and psychiatric nurses; Liaison with other professionals such as neurologists; supervising the out-patient, in-patient, emergency and casualty and other clinical services (ECT etc); being available on all days 24-hours for patient care.

SUMMARY PROJECT:

HOME VISITING INTERVENTION BASED ON PRE-MARITAL COUNSELLING IN A COMMUNITY SETTING FOR PREVENTING MENTAL DISORDERS

Marriage is one of the most important events of life affecting social status as well as the psyche of an individual. It not only serves to satisfy the fundamental biological need of sexual gratification through a socially acceptable way but also helps the individual to achieve a higher level of personality maturation. In India, marriage is a onetime event in life, which is glorified and sanctified and is associated with much social approval. Indian society believes that easy marriage and divorce cheapen the institution of marriage and threaten the structure of the family. Moreover, a significant stigma still exists to consult regarding sexual health and also a general tendency to keep the sexual problems secretive as, in Indian culture, pre-marital enrolment in sexual activity or self stimulation is not very common and considered atrocious.

All these factors make marriage a significant stressful event in an individual's life, females more than males. Stress may induce neuro-endocrinal changes particularly mediating disturbances in HPA axis which may secondarily lead to mental health problems particularly so in vulnerable people. Further marital disharmony may propagate the building up of ill health. The rough familial atmosphere coupled with high societal expectations particularly during and after pregnancy may lead to development of mental illness in mothers or child. There is evidence that marital status is significantly associated with first admission rates, age of onset, course and outcome of mental illnesses. Research has as of yet not focused on this aspect of preventing mental illness.

We propose a two year study aimed to prevent mental disorders by a home visiting intervention in community setting. The intervention will be based on gender sensitive pre-marital counselling focusing on adolescents and young adults addressing factors such as sexual and reproductive health, sexual education (concerning about sexual function, sexual feelings and intimacy),

sexual communication, nutrition, domestic violence and, socio-economic issues. A training programme (behaviourally-based intervention) will be undertaken to increase coherent child-parent interaction, amplify parental skills, and improve child's problem-solving behaviour and social functioning. A script based role playing would be supplemented as training exercise. The intervention will initially be individualised and later age-bound-group based to increase association and flow of information among the community members. Outcome parameters will be assessment of mental health of individuals on general health questionnaire on six monthly follow up for 2 years extendable for 5 years.



FIAMMETA COSCI

POSITION TITLE:

Assistant Professor at the University of Florence, Italy

INSTITUTION AND LOCATION	DEGREE	YEAR(S)	FIELD OF STUDY
University of Florence, Italy	Degree	1999	Medicine
University of Florence, Italy	Degree	2003	Psychiatry
University of Maastricht, The Netherlands	M.Sc.	2003	Psychiatry
University of Maastricht, The Netherlands	PhD	2007	Psychiatry

BIO SKETCH:

Referee for 22 Journals. Member of the Referees Register of the Italian Ministry of Instruction, of University and Research. Peer Reviewer for the Medical Research Council. Referee for the evaluation of abstracts for poster for the European Health Psychology Society (EHPS) (International Programme Committee of the 23rd Annual Conference, Pisa, 23-26 September 2009).

From 2012 Member of the Editorial-Scientific Committee of "Tabaccology", Journal of Italian Society of Tabaccology (SITAB).

Ongoing grants for research: Global Research Awards for Nicotine Dependence (GRAND), Pfizer; Grant from the Italian Ministry of Research and Instruction; Grant from the University of Florence for one research fellowship.

Completed grants for research: Grant from the University of Florence for one research fellowship; Life Long Learning Programme Erasmus scholarship; Grant from the University of Florence for Young Researchers.

Publications: 31 papers published in International Journals; 9 papers published in National scientific journals; 5 book chapters; 1 monograph; 67 abstracts; 4 posters. Other titles: European Certificate in Anxiety and Mood Disorders (2001); Specialist in Psychosomatics (2009); EPA Research Prize 2009 winner.

SUMMARY PROJECT:

The level of negative affectivity seems to influence the outcome in quitting



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smoking. The pharmacological treatments currently administered to quit may modulate negative affectivity because of dopaminergic and noradrenergic activity (bupropion) or nicotinic receptor partial agonism (varenicline).

The present project was born in 2005 with the assessment of negative affectivity in smokers applying for three public smoking cessation clinics of the Tuscany (Italy) compared to smokers of the general population. The first group showed higher negative affectivity than controls (see Depression & Anxiety 2008 26(9):824-830). On the basis of these findings, in 2009 the smoking cessation clinic located in Pisa and involved in the previous multicenter study, introduced the Hospital Anxiety Depression Scale (HADS) as a screening scale assessing negative affectivity in smokers at first visit. On the basis of the HADS score, a decisional algorithm was also applied to propose the treatment and evaluate the need of a psychiatric advice.

The introduction of an objective measure of negative affectivity and the algorithm is an important step toward a proper treatment of smokers. This procedure allows an adequate assessment and pharmacological treatment, decreases the risk of psychiatric side effects due to the pharmacological treatment, and may increase the rate of success in quitting and/or the duration of smoking abstinence. Thus, tertiary prevention is put in practice. It may also allow an early diagnosis of affective disorders, according to the secondary prevention principles. Finally, it can allow primary prevention because high negative affectivity can be the prodrome of a psychiatric disorder and its early assessment should be a target for early intervention.

To further strengthen this project, we want to study negative affectivity in smokers who receive a pharmacological treatment and evaluate if such treatment influences negative affectivity and if negative affectivity influences the possibility to quit.



LORENZO LELLI

POSITION TITLE:

4th year Resident Physician
in Psychiatry. Psychiatric Unit
-Department of Neuropsychiatric
Sciences. University of Florence School
of Medicine

INSTITUTION AND LOCATION	DEGREE	YEAR(S)	FIELD OF STUDY
University of Florence, Italy	M.D.	2008	Medicine

BIO SKETCH:

My name is Lorenzo Lelli, I was born in Pistoia (Italy) on 13/02/1982. I Graduated in Medicine and Surgery at University of Florence (Italy) in 2008 (Score: 110/110 et lode) with a Thesis on "Dexamethasone Suppression Test and psychiatric symptoms: a trans-diagnostic approach" with Prof. Carlo Faravelli as supervisor. I'm a 4th year resident in Psychiatry at University of Florence. I'm also attending a training in cognitive-behaviour psychotherapy in Florence and I'm a first year student of the International Master In Affective Neuroscience (Maastricht University). During my residency, I'm mainly focused

on Eating Disorders; Stress, HPA-Axis and psychopathology; Bipolar Disorders and Anxiety Disorders, panic disorder especially.

As demonstrated by my publications and the argument of my thesis, my clinical and research experience is related to the psychopathological, clinical and treatments features of these disorders. I am enthusiastically involved in several clinical studies in the field of epidemiology of life events and psychiatric disorders, eating disorders, stress-childhood traumata-HPA-Axis and adult psychopathology.

I'd like to improve my knowledge about biological and neurological aspects of psychiatric disorders such as mood and anxiety ones. I'm also very interested in epidemiology, neuropsychopharmacology and neuroimaging.

To date, I have published 9 papers in refereed journals

SUMMARY PROJECT:

THE ROLE OF EARLY STRESSFUL LIFE EVENTS IN THE ETIOPATHOGENESIS OF MENTAL DISORDERS: ARE THEY RISK FACTORS?

Background: An excess of childhood trauma, both loss and abuse events, is reported to be associated with the development of several Mental Disorders such as mood disorders, anxiety disorders, post-traumatic stress disorder (PTSD), eating disorders, schizophrenia, personality disorders and substance abuse. Previous animal models seem to confirm the relationship between early stressful events and the development of distress symptoms. This relationship seems to be mediated by the Hypothalamic-Pituitary-Adrenal-Axis (HPA-axis). Accordingly, functional abnormalities of the HPA axis have been widely reported in psychiatric disorders, including depression, bipolar disorder, anxiety disorders, eating disorders, schizophrenia, substance abuse, dissociative symptoms, dementia, and posttraumatic stress disorder.

Aim of the study: To investigate the relationships between early stressful life events, HPA Axis functioning and psychiatric symptoms from a trans-diagnostic point of view.

Methods: The research project plans to study a consecutive series of 200 patients admitted to the in and out-patient Psychiatric unit of Florence Hospital and University School of Medicine. A group of 200 people will be drew from the general population living in the same catchment area, matched with the psychiatric case for age, gender and education. The protocol includes a complete clinical and anamnestic assessment involving a face-to-face interview and the administration of self-report questionnaires including the Florence Psychiatric Interview (FPI), the Childhood Experience of Care and Abuse Questionnaire (CECA.Q), the Mini-International Neuropsychiatric Interview (MINI Plus) and the Self-report Symptom Inventory-Revised (SCL-90R). Saliva samples will be collected for cortisol analysis 30 and 60 minutes after awakening and at 8.00 pm. Expected results: To establish in our sample if an excess of childhood trauma is correlated to HPA Axis alterations and the development of Mental disorders and psychiatric symptoms. Better understanding such a relationships could help to build up more appropriate strategies for prevention in adolescents who had experiment childhood traumata.



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TOMOHIRO SHIRASAKA

POSITION TITLE:

Research Fellow.

Sapporo Medical University Hospital,
M.D., Ph.D.

INSTITUTION AND LOCATION	DEGREE	FIELD OF STUDY
Department of Neuropsychiatry Sapporo Medical University Sapporo city, Hokkaido, Japan.	M.D., Ph.D	Neuropsychopharmacology

BIO SKETCH:

Tomohiro Shirasaka is currently a Research Fellow at Sapporo Medical University School of Medicine, Department of Neuropsychiatry.

He obtained his Doctor of Medicine from Saitama Medical University in 2005 and he received a Ph.D. in Neuropsychopharmacology from the Sapporo Medical University in 2012.

His Ph.D. research was translational research, using stem cell transplantation for fetal alcohol spectrum disorder.

He has also been a board member of the Japan Young Psychiatrist Organization (JYPO) and worked as research fellow at the department of neuropsychiatry, Sapporo Medical University School of Medicine. To date, he has authored or co-authored eighteen publications in refereed journals.

SUMMARY PROJECT:

PROMISING THERAPY OF INTRAVENOUS NEURAL STEM CELL TRANSPLANTATION – A STRATEGY FOR FACILITATION OF NEURAL NETWORK AND BEHAVIORAL RECOVERY –

Recent clinical neuroimaging studies have revealed a possible relationship between morphological brain changes and the manifestation of psychiatric disorders such as depression, schizophrenia, and alcoholism. Although its biological mechanism is still unclear, the emerging evidence suggests that the alteration of neurogenesis is the key factor for the morphological brain changes of these psychiatric disorders.

In our previous work, we analyzed the mechanism of neural network disruption by ethanol using cultured cells, and found a suppressive effect of ethanol on neural stem cell (NSC) differentiation. While, we also demonstrated that antidepressants, mood stabilizers and atypical antipsychotics stimulate NSC differentiation which was inhibited by ethanol.

In the present work, we have demonstrated that the usefulness of intravenous transplantation of NSCs to fetal alcohol spectrum disorder (FASD) model rat for the purpose of reconstructing the impaired neural network and investigating the possibility of regenerative therapy for patients with neurobehavioral deficits of FASD.

We have shown the potential migration of transplanted NSCs into the brain by visualizing a fluorescent cell marker and radioisotope, as well as the possible recovery of behavioral abnormalities observed in FASD model rats, such as anxiety-like behaviors, memory/cognitive function, and social interaction.

We further assessed the characteristics of transplanted cells in the brain and found that the GABAergic interneurons were increased in amygdala, DG, cingulate cortex areas in the model rat. In the amygdala and cingulate Cortex of model rats, number of parvalbumin positive cells was reduced and the NSC transplantation recovered these disturbances. Moreover, in the amygdala and cingulate cortex, intravenous NSC transplantation appears to regenerate expression of post-synaptic density protein 95 (PSD95) in FASD model rats. These results indicate that intravenous NSC transplantation has the potential to become a therapeutic intervention for FASD patients.



MARÍA DE LOURDES NIETO GARCIA

POSITION TITLE:

Principal investigator

INSTITUTION AND LOCATION	DEGREE	FIELD OF STUDY
Universitat Autònoma de Barcelona (UAB)	PhD	Psychopathology

BIO SKETCH:

Lourdes Nieto is PhD Psychology from Universitat Autònoma de Barcelona (UAB), Department of Clinical Psychology and Health in 2012. Her PhD research was lack of insight in psychotic spectrum disorders. She obtained her Bachelor's degree in Clinical Psychology from Universidad Nacional Autónoma de México (UNAM) in 2003 and Master's degree in Psychopathology of children, adolescents and adults in 2011. She has training in Cognitive Behavioral Rational Emotive Therapy from Institute of Rational Emotive Therapy (RET) of Barcelona, Spain. During the last five years she has worked in different research projects about psychosis. To date, she has authored or co-authored eight publications in international refereed journals. She has participated in international congress.

SUMMARY PROJECT:

Lack of insight is a common feature of psychosis. Patients do not accept psychiatric and/or psychology treatment because unawareness of disease. Different studies have found that caregivers of patients with psychosis often develop symptoms of anxiety and depression related to patient care. LEAP method (Listen-Emphasize-Agree-Partner) is a program designed for develop ability to listen in a reflexive empathy with the psychotic patients. Aim of this study is LEAP method to teach a group of caregivers of patients with first episode and initial psychosis and compare presence and severity of symptoms of anxiety and depression with a group of caregivers who have no knowledge of this method.

We proposed a pilot study with prospective design and aleatorized parallel groups. All subjects who meet the following criteria will be invited to participate in the study: 1) men and women between 18 and 65 years of age, 2) who are the primary caregivers of a family member suffering a first and initial psychotic



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episode with lack of insight, and 3) living with the patients or sharing more than 25 % of time with them. First and initial psychotic episode are defined as patients with psychotic symptoms less than five years of evolution. Diagnosis of the patients was based on the DSM-IV criteria (APA, 2000). Exclusion criteria for the caregivers included any mental disorder, drugs and alcohol abuse, taking any psychotropic medication or participation in similar studies. Considering the prevalence of the patients, we proposed an initial sample size of 15 caregivers on every group. The assignation of the volunteers to every group will be aleatorized. We assumed a maximum of 30% of lost cases, then the last sample will be included of a minimum of 10 caregivers by group.



**JESSICA A. DE
WILD-HARTMANN**

POSITION TITLE:

PhD candidate, fac. Psychiatry and Psychology, Maastricht University.

INSTITUTION AND LOCATION	DEGREE	YEAR(S)	FIELD OF STUDY
Maastricht University	Bachelor	2003-2006	Psychology
Maastricht University	Master of Sciences	2006-2008	Neuroscience and Neuropsychology

BIO SKETCH:

Jessica A. de Wild- Hartmann, originally from Germany, received her Bachelor in Biological Psychology (2006) and her Master in Cognitive Neuroscience, Neuropsychology & Psychopathology (2008, cum laude) from Maastricht University, the Netherlands. During her studies, she engaged in several research-oriented activities, such as extracurricular research assistance at the Department of Neurocognition and a work placement at the Max Planck Institute for Cognitive and Brain Sciences in Leipzig, Germany. She completed her graduate internship (nine months) at the Surrey Sleep Research Center, University of Surrey (United Kingdom) under the supervision of Prof. Dr. Derk-Jan Dijk. From 2009 to 2011, Jessica worked as a research officer in a large intervention study targeting emotional resilience in depression, a joined project of Maastricht University and GGzE (Dutch mental health care institution). In 2011, she was appointed a position as PhD candidate at the School for Mental Health and Neuroscience (MhENS) in cooperation with GGzE, studying the association between sleep and affect in depression, under the supervision of Prof. Dr. Jim van Os (Maastricht University, Department of Psychiatry and Neuropsychology). Jessica presented her work at various national and international conferences, such as the ECNP (European College of Neuropsychopharmacology) in Vienna and the ERSR (European Sleep and Research Society) in Paris, and received several awards, such as the travel award from the ECNP and the poster award of the Dutch Organization for Sleep-Wake Research (NSWO). Jessica is married and lives with her husband in 's- Hertogenbosch, the Netherlands.

SUMMARY PROJECT:

SLEEP- AND AFFECT REGULATION IN DAILY LIFE: ON THE PATHWAY TO DEPRESSION

1) Sleep and affect are closely intertwined. Poor sleep is found to be a risk factor for depression, while sleep disturbances such as insomnia are also considered a symptom of depression. Both aspects, affect as well as sleep, appear to be easily dysregulated: insomnia and depression have high prevalence rates and are associated with high societal costs. But what are the mechanisms connecting sleep and affect and how do they relate to depression? The project endeavours to address this question by zooming down to the day-today dynamics of sleep and affect by making use of the Experience Sampling Method (ESM). ESM is a structured diary technique offering a unique perspective: by assessing variables of interest prospectively, repeatedly and ambulatory, it is possible to investigate daily within-person associations and dynamics on a micro level. First, in a sample of 553 women, ESM is used to investigate how subjective sleep and momentary affect are associated in everyday life and how it is related to future depression. Second, it is investigated who is genetically particularly sensitive to the effects of sleep and why.

2) Depression is an invalidating disease affecting 10% of the world population. The demand for affordable treatment alternatives is high. In the project, it is investigated whether ESM can be used not only to monitor, but also to intervene on depression. Recent evidence indicates that the ability to experience positive affect in daily life is associated with vulnerability for and course of depression. In a randomized controlled trial (n=102), it is studied whether feedback on daily life affect and behaviors, derived from data collected with ESM, can be effective in reducing depression and enhancing positive affect in daily life.



SEYED EHSAN PISHVA

POSITION TITLE:

PhD student

INSTITUTION AND LOCATION	DEGREE	FIELD OF STUDY
Maastricht University	M.D.	Neuroscience

BIO SKETCH:

I am a PhD candidate in the Neuroscience program at Maastricht University. I received my M.D. in 2007 in Iran, and afterwards, practiced medicine for two years in the Neonatal Intensive Care Unit. In 2010, I moved to the Netherlands and joined the School for Mental Health and Neuroscience, at Maastricht University. I was involved in a research project investigating the behavioral and molecular effects of electrical deep brain stimulation on animal models of stress and depression under the supervision of Prof. Dr. Yasin Temel. In 2011, I started my own PhD projects in the department of psychiatry and psychology under supervision of Prof. Dr. Jim van Os, Dr Bart Rutten, and Dr Gunter Kenis. My research interest focuses on the modulation of gene-environment interactions through DNA methylation in psychiatric disorders. In our research



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group, we conduct epidemiologic, clinical, genetic, and neurochemical approaches, to investigate the effects of the environment on psychiatric disorders. I recruit different populations of healthy subjects and subjects with clinical psychopathology. With these subjects, I employ gene-environment interaction models with a focus on genes relevant for epigenetic mechanisms. Furthermore, I follow a translational approach by using laboratory animals exposed to the environmental pathogens akin to real life situations such as the social defeat model of stress and prenatal stress to enhance our understanding about the precise epigenetic mechanisms, which mediate environmental effects on psychiatric phenotypes.

SUMMARY PROJECT:

EPIGENETIC MECHANISMS AND GENE-ENVIRONMENT INTERACTIONS IN PSYCHIATRY

E. Pishva, G. Kenis, M. Drukker, W. Viechtbauer, J. Decoster, D. Collip, R. van Winkel, M. Wichers, N. Jacobs, C. Derom, V. Thewissen, T. Lataster, I. Myin-Germeys, J. van Os, B.P.F Rutten

Department of Psychiatry and Neuropsychology, South Limburg Mental Health Research and Teaching Network, EURON, School for Mental Health and Neuroscience MHeNS Maastricht University, Maastricht, The Netherlands.

Recent human and animal studies suggest that epigenetic mechanisms mediate the influence of adverse environmental conditions on the development of psychiatric disorders. Polymorphisms in the epigenetic machinery genes might therefore play a crucial role in vulnerability to psychological phenotypes. To evaluate this hypothesis, we conducted several gene-environment interaction studies to investigate whether polymorphisms in 30 SNPs over 4 DNA methylation relevant genes (DNMT1, DNMT3A, DNMT3B, and MTHFR) moderate the effect of environmental conditions such as obstetric complications, low birth weight, childhood trauma and daily stressful events in adulthood on various psychiatric outcomes like affects, emotional reactivity, paranoia and psychosis reactivity. Momentary social stress, stressful events paranoia and emotional states in daily life were determined with experience sampling methodologies. A two-stage association analysis using multilevel linear regression was employed. First, main effects and interactions were tested in 113 healthy individuals. In the second stage, significant associations (at $p < 0.05$) were replicated in a sample of 380 female twins from a general population. In addition, significant effects in both the original and replication sample were tested in several clinical samples of patients with psychotic disorder ($n=108$), siblings of patients with psychotic disorder ($n=96$), and patients with residual symptoms of depression ($n=125$). Regression analyses revealed that the associations between different environmental risks over the life course and some mentioned psychiatric phenotypes are significantly different in healthy individuals with a certain genotype of the DNMT3a gene and the effects were consistently significant over the replication and other study groups.



**RODRIGO FRANCISCO
OLANO PEÑA**

POSITION TITLE:

MD, MSc

INSTITUTION AND LOCATION	DEGREE	FIELD OF STUDY
Cayetano Heredia University, Lima-Peru	MD	Medicine
Cayetano Heredia University, Lima-Peru	MSc	MSc in Epidemiology

BIO SKETCH:

Dr Peña-Olano has been involved within Psychiatry since medical school. He gained experience in clinical rotations in both, at the national and international level. After his graduation, he obtained an award to study a Masters Program in Epidemiological Research at Cayetano Heredia University and John's Hopkins University agreement. As part of his training, he was involved in research projects at the National Institute of Mental Health "Honorio Delgado – Hideyo Noguchi" and Institute of Studies in Health, Sexuality and Human Development in Lima, Perú; which are still in process.

Due to his commitment to Psychiatry and the alleviation of Mental Health disorders in the community, he recently was elected to work as a physician in a rehabilitation center for the mentally ill, as well he is writing his own proposal about the promotion of Mental Health using Social Media with all learned in his master's program. His future plans include the application for a residency in Psychiatry in the upcoming year.

SUMMARY PROJECT:

ASSOCIATION BETWEEN SLEEP QUALITY AND SUICIDE BEHAVIOR IN COASTAL ADULTS, PERU

Objective: Explore the association between Sleep Quality and Suicide Behavior in a sample of adults living in 5 coastal cities in Peru.

Methods: We performed a secondary data analysis of the Epidemiological Study of Mental Health in the Peruvian Coast, in which a total of 7020 participants between 18 and 60 years old were enrolled by using Conglomerate Sampling Design. Data were collected using the Pittsburgh Scale for the evaluation of Sleep Quality and questionnaire regarding suicide behavior since desire for death to attempted suicide in the last month. We adjusted the association with other covariates as age, sex, socioeconomic status, education level, history of depression, history of suicide behavior and history of physical and sexual abuse. Analysis is being performed with the use of Stata Version 12, by using Survey Data Analysis (SVY) considering a 95% confidence interval (bootstrapping).

Expected Results: We expect to find a significant association between both variables. The results will establish the basis for the incorporation of new strategies in the prevention of suicide.



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DARIA SMIRNOVA

POSITION TITLE:

Teaching and research assistant,
Specialist in Psychiatry, Psychotherapy

INSTITUTION AND LOCATION	DEGREE	YEAR(S)	FIELD OF STUDY
Samara State Medical University, Samara, Russia	MD, honors diploma	1998-2004	Medicine
Psychiatry, narcology, psychotherapy and clinical psychology department, Samara State Medical University Samara, Russia	Specialist	2004-2006	Psychiatry
Moscow Research Institute of Psychiatry, Moscow, Russia	Candidate of MS/ PhD (2010)	2006-2010	Psychiatry

BIO SKETCH:

Daria Smirnova is currently a Teacher and Research Assistant at Samara State Medical University, Department of Psychiatry, narcology, psychotherapy and clinical psychology. Her Ph.D. research is devoted to clinical psychopathology and verbal features of mild depressions and reactions of normal sadness as well as an attempt to elaborate linguistic markers of these mental states. She obtained her Medical Doctor degree from Samara State Medical University in 2004 and Candidate of medical sciences (Psychiatry) degree from Moscow Research Institute of Psychiatry in 2010. She has also been a member of Study group within the project on Language and schizophrenia (Language disorder in bilingual Russian-Hebrew patients with Schizophrenia) in Ben-Gurion University of the Negev, Beersheva Mental Health Center, Beersheva, Bar-Ilan University, Tel Aviv, Israel. To date, she has authored or co-authored three publications in refereed international journals and a number of papers in Russian professional editions.

SUMMARY PROJECT:

DIFFICULTIES IN DIAGNOSIS OF MILD DEPRESSIONS ARE RELATED TO CLINICAL INTERPRETATION OF THOUGHT STRUCTURE AND CONTENT WITHIN DEPRESSIVE TRIAD

The precise study of verbal structure and semantics of speech in relationship to cognitive function is oriented to clarify the diagnosis and clinical perception of mild depression and normal sadness phenomenon.

124 patients and 77 healthy controls, including 35 with normal sadness reactions, were observed. Speech (superficial, deep levels, Russian language native speakers) was studied using standardized psycholinguistic procedures. Statistical data evaluation included descriptive methodics, nonparametric analysis, mathematic modeling (discriminate analysis).

Three clinical groups were formed upon to psychopathological subtypes (anxious, asthenic-hypodynamic, melancholic mild depressions). Leading hypotymic affect correlated with content of affective component, semantics of associative component, pronounced component of depressive triad and direction of the prevailing timeline representation. Lexical-stylistic sublevel of speech demonstrated verbosity, narration dominated over reasoning, signs of oral speech, increased number of phraseologisms, tautologies, lexical and semantic repetitions, metaphors, comparisons, inversions, ellipsis. Lexical-grammer sublevel contained more pronouns of all types with the prevalence of personal pronouns, imperfective verbs in preferential past tense. Syntax-stylistic sublevel represented the prevalence of simple sentences (truncated, impersonal), inversive word order. Component analysis of speech demonstrated the qualitative distortion and reduction of semantic component.

Disruptions in structure and semantics of speech related to the most clinically pronounced thought disorder were presented in melancholic depression. Superficial level of speech was damaged mostly in asthenic-hypodynamic depression. Speech was similar to healthy controls and demonstrated the highest among subgroups cognitive adaptability level in anxious subtype. Depressive states and normal sadness were significantly differentiated based on clinical and linguistic criteria.



ARACELI NÚÑEZ NAVARRO

POSITION TITLE:

INSTITUTION AND LOCATION	DEGREE	FIELD OF STUDY
UNED University, Spain	Psychology Degree	Psychology
University of Barcelona, Spain	DEA: Master in Advanced Research Methods	Psychological research
University of Lleida, Spain	Master in Equal-Opportunity Agents for Women in the Rural Environment	Social psychology
Ret Institute, Barcelona, Spain	Postgraduate Degree in Rational Emotive Behaviour Therapy (REBT)	Psychotherapy
University of Barcelona, Spain	PhD: "Gender, Phenotypical differentiation and therapy response for Bulimia Nervosa"	Psychological research

BIO SKETCH:

Araceli Núñez recently got her PhD at the University of Barcelona with the dissertation called: "Gender, Phenotypical differentiation and therapy response for Bulimia Nervosa". She also obtained a Postgraduate Degree in Rational Emotive Behavior Therapy at 2011 and a Master degree as an Agent on Equal-



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Opportunity for Women in the Rural Environment at 2008. From 2008 to 2011 she was a Marie Curie Research Fellow at the University of Minho (Portugal) and worked within the European project INTACT on the prevention of eating disorders (ED) among College students. She has broad experience on clinical work specifically in the area of ED, but also in other mental health problems. To date, she has authored or co-authored seven publications in refereed journals.

SUMMARY PROJECT:

Mental disorders are a serious problem, causing pain and social distress to those who are suffering from the pathology and their caregivers, and likewise cause great cost to our community. Cognitive-behavioural therapy has been supported as an effective treatment for a variety of mental disorders. Prevention programs with children can be quite beneficial in future behaviours, social interactions and academic results. The aim of this project will be to implement and evaluate the effectiveness of using “healthypersonal skills”-workshops with children as a prevention of symptomatology of four mental disorders: eating (EDs), depression (D), anxiety (ADs) and substance use disorders (SUDs). The main objective will be (1) to analyze the effectiveness of using “healthy personal skills” workshops with children as a prevention of EDs, SUDs, ADs and D symptomatology, when compared with a comparison group of children with no access to the workshops. The secondary objectives will be: (2) to develop the workshops “healthy personal skills”; (3) to describe the adherence to the program and to analyze the relation between adherence and outcome. (As adherence variables will be used: active participation on the workshops and realization of the workshop tasks and/or homework and as outcomes will be used the results on the different assessments.) Participants will be children with ages between 10 and 13 years old and the duration of intervention will last 4 scholar years (20 workshops per year). Positive results showing “healthy personal skills”-workshops as an adequate tool to teach body acceptance, healthy self-esteem, interpersonal/social skills and emotional regulation on children are expected



IRIA GRANDE

POSITION TITLE:

PhD Student with a scholarship
Río Hortega
Contract from the Instituto de Salud
Carlos III, Spanish Ministry of Economy
and Competiveness.

INSTITUTION AND LOCATION	DEGREE	FIELD OF STUDY
University of Barcelona, Spain	M.D.	Medicine
University of Barcelona, Spain	M.Sc.	Master in Neurosciences

BIO SKETCH:

Iria Grande obtained her degree in Medicine and Surgery, specialized in Psychiatry at the Hospital Clínic, Barcelona and attained a Master's Degree at the Neurosciences Master by the University of Barcelona. Dr. Grande currently works as a researcher at the Barcelona Bipolar Disorders Unit in the Hospital

Clínic. She is involved in diverse research projects on functioning and different pharmacological treatments for the bipolar disorder. At the same time, she is investigating about possible peripheral biomarkers in the bipolar disorder and in the conceptualization of this disorder into a model of staging. In the study of these last two areas, she spent 6 months in the Bipolar Disorder Program and Laboratory of Molecular Psychiatry of Porto Alegre, Brazil directed by Professor Flávio Kapczinski. Dr. Grande has been speaker, moderator and has presented oral communications and posters in national and international congresses. She has published 18 articles and is reviewer in international journals. In 2011 she received the international Lilly Young Investigator Fellowship in Bipolar Disorder Award from the International Society of Bipolar Disorder (ISBD).

SUMMARY PROJECT:

LONGITUDINAL CHANGES IN SERUM BRAIN-DERIVED NEUROTROPHIC FACTOR DURING TREATMENT OF MOOD EPISODES IN MEDICATION-FREE PATIENTS WITH BIPOLAR DISORDER

Iria Grande¹, Pedro VS Magalhães², Laura Stertz², Gabriel Fries², Eduard Vieta¹, Flávio Kapczinski²

1 Bipolar Disorders Unit, Clinical Institute of Neurosciences, Hospital Clínic, University of Barcelona, IDIBAPS, CIBERSAM, Barcelona, Spain.

2 Bipolar Disorder Program and Laboratory of Molecular Psychiatry, National Institute for Translational Medicine, INCT-TM Hospital de Clínicas de Porto Alegre, Federal University of Rio Grande do Sul, Porto Alegre, Brazil.

Synaptic plasticity and resilience are increasingly recognized as being part of a dimension of paramount importance in mood disorders. Neurotrophins are key regulators of pathways influencing neuronal survival, and a neurotrophic model of mood disorders has been actively investigated in the last decade. Brain-derived neurotrophic factor (BDNF) has enjoyed particular prominence, mediating neural processes involved in synaptic efficacy and neuroplasticity and has been put forward as a potential marker of treatment response in bipolar disorder (BD). In the present 16-week naturalistic, open-label clinical trial study, we prospectively investigate the associations of serum BDNF levels and the BDNF VAL66MET polymorphism with clinical response. One hundred and twenty eight subjects were enrolled in this study. Sixty-four medication-free bipolar patients in acute mood episode (19 manic, 16 mixed, 29 depressed) according to SCID-I were matched for age, gender and ethnicity with 64 healthy controls. Patients had their mood and functional assessments (YMRS, HDRS-21, CGI and GAF) and serum samples obtained at baseline and weeks 2, 4, 8 and 16. Serum BDNF levels were measured with sandwich-ELISA, using a commercial kit (Millipore, Temecula, USA). The genotyping of the BDNF VAL66MET SNP polymorphism was performed using a 5' nuclease TaqMan allelic discrimination assay on the 7500 Real-Time PCR Systems (Applied Biosystems, Carlsbad, USA). Mixed models were used to investigate longitudinal changes in serum BDNF. We did not find differences in serum BDNF levels or in the VAL66MET polymorphism between patients and controls. The multivariable model showed lower BDNF levels in patients with the VAL66MET genotype and higher BDNF levels for those achieving remission. These results suggest that serum BDNF levels during the acute mood episode could be associated with treatment response in BD and further adds to the literature that BDNF levels may be a useful biomarker of treatment response in BD.



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NEREA PALOMARES MORA

POSITION TITLE:

Psychologist researcher

INSTITUTION AND LOCATION	DEGREE	FIELD OF STUDY
"René-Descartes, Paris V" University (2003)	Erasmus fellowship	Psychology
University Complutense of Madrid (2005)	Bachelor	Psychology
University Complutense of Madrid (2011)	Advanced research degree	Medicine/ Psychiatry
Maastrich University (currently)	Master of Affective Neuroscience	Neuropsychology/ psychiatry
University Complutense of Madrid (Currently)	PhD International	Medicine/ Psychiatry

BIO SKETCH:

I completed my Bachelor's Degree in Psychology in 2006 at the Faculty of Psychology of the University Complutense of Madrid. Two years later I started to work at the Hospital Clinico San Carlos of Madrid where I have been working for 6 years as a Psychologist Researcher. I have been involved in more than 7 European and national research projects since then and granted by the Ministry of Education, the Ministry of Health and other national and private bodies in order to continue my training and work. Some of my tasks in the hospital are the following: projects writing, scientific papers' writing, clinical and neuropsychological assessment of patients, European projects' updates, translation of scientific documents. . . and others.

Simultaneously, I have my own private Psychology consultation from 2006 (Compass Psicología) where clinical consultation and training are offered. I am a tutor of the Master of the Spanish Association of Cognitive-Behavioral Psychology and provide training in the private field. Currently I am a member of the CIBERSAM (Network of Mental Health Research in Spain) and I work with Borderline Personality Disorders and their impulsive behaviors and how those behaviors and symptoms may affect to the cognitive skills of the patients. I am currently attending an International Master in Affective Neuroscience in Florence and Holland. Furthermore, I am currently performing my PhD at the Faculty of Medicine in the University Complutense of Madrid about the Feeling of Emptiness in Borderline Personality Disorders.

I can speak fluently French, Italian and English besides the Spanish (my mother tongue) and I have the Simultaneous Interpretation Degree and the Higher Official Degree in French.

SUMMARY PROJECT:

A STUDY OF THE EFFECTIVENESS OF NEUROCOGNITIVE REHABILITATION IN BORDERLINE PERSONALITY DISORDER

Objectives: To investigate the effectiveness of a neurocognitive rehabilitation

program in borderline personality disorder, a severe mental disorder with intense functional impairment. Effects in cognitive functioning as well as in clinical symptoms and in psychosocial functioning will be evaluated.

Design: Six-month, multicentric randomized study (3 centers) with two branches of treatment, blinded for clinical raters. One branch of 21 group weekly sessions of neurocognitive rehabilitation program. The second branch of treatment as usual, including medication and nonspecific psychological support.

Sample: Patients with Borderline Personality Disorder according to DSM-IV TR criteria, ranging from 18 to 45 years old, without schizophrenic or mood comorbid disorders, substance dependence disorder and IQ > 85. Medication is allowed according to clinical criteria. A sample of 70 patients (35 per branch) has been estimated for statistical significance.

Ratings: Clinical variables: 1. Severity with specific CGI-BPD, 2. Overt Aggression Scale (OAS) for aggressive behaviors, 3. Barrat Impulsiveness Scale (BSI) for impulsive behaviors. Global functioning: 1. Personal and Social Performance Scale (PSP) for psychosocial functioning and 2. WHODAS-II for quality of life. Neuropsychological evaluation: Set of tests for detection of dysfunctions of memory, working memory, flexibility, inhibitory control and executive functions. Blinded clinical ratings at baseline, every month of treatment, at end-point and six month after discontinuation.

Statistics: Multivariate ANOVA and Chi-square for distribution of continuous and categorical variables. Effect size index. Logistic regression to explore predictive variables.



VIKTORIA JOHANSSON

POSITION TITLE:

PhD student at Department of Medical Epidemiology and Biostatistics, Karolinska Institutet
Senior Consultant Psychiatrist, Department of Psychiatry, Clinic for Affective Disorders
Karolinska University Hospital Huddinge

INSTITUTION AND LOCATION	DEGREE	YEAR(S)	FIELD OF STUDY
Karolinska Institutet, Stockholm Sweden	Medical degree	1993-1999	Medicine
Lidköping Hospital, Lidköping Sweden	Licensed doctor	1999-2000	Internship
Residency in Psychiatry	Consultant Psychiatrist	2001-2006	Psychiatric training (MD)
University of California Los Angeles (UCLA) Prof. Tyrone D Cannon, USA			Research visit November 2011
Department of Medical epidemiology and Biostatistics, Karolinska Institutet	PhD (ongoing)	2010	Psychiatric epidemiology



BIO SKETCH:

My name is Viktoria Johansson and I live in Stockholm, Sweden. I have been working as an MD in the field of psychiatry in Sweden since 2001. In 2007 I started as a data collector in a Swedish twin study at the Department of Medical Epidemiology and Biostatistics, Karolinska Institutet (PI Prof. Christina Hultman), examining twin-pairs with bipolar disorder and schizophrenia. I then became interested in research and I was involved in a project looking at biomarkers of the CSF in twins with bipolar disorder and schizophrenia. Since 2010 I am working with my own PhD project with Professor Christina Hultman as my main supervisor and Mikael Landén and Lennart Wetterberg as cosupervisors. We have collected a unique material of CSF from twin pairs with schizophrenia and bipolar disorder where biomarker discovery is one of our aims. The project has led to two publications. I am also working with a register study looking at the comorbidity of multiple sclerosis and psychiatric disorders (bipolar disorder and schizophrenia). Studying the environmental and genetic relation between psychiatric disorders and multiple sclerosis may provide support for and develop the immuno-hypothesis of schizophrenia and bipolar disorder. Publications: Johansson V, Nybom R, Wetterberg L, Hultman CM, Cannon TD, Johansson AG, Ekman CJ, Landén M. Microscopic particles in two fractions of fresh cerebrospinal fluid in twins with schizophrenia or bipolar disorder and in healthy controls. PLoS One. 2012;7(9):e45994. doi: 10.1371/journal.pone.0045994. Epub 2012 Sep 25. Mobarrez F, Nybom R, Johansson V, Hultman CM, Wallén H, Landén M, Wetterberg L. Microparticles and microscopic structures in three fractions of fresh cerebrospinal fluid in schizophrenia: Case report of twins. Schizophr Res. 2012 Nov 19. pii: S0920-9964(12)00604-4. doi: 10.1016/j.schres.2012.10.030.

SUMMARY PROJECT:

Psychotic disorders represent major public health concerns as current treatments are limited and palliative, with significant side effect burden, poor adherence and lack of vulnerability markers. The main objective of my project is to 1) identify biological markers for schizophrenia and bipolar disorder in a clinical setting and to 2) study the pattern of genetics and comorbidity between schizophrenia, bipolar disorder and multiple sclerosis in an epidemiological setting.

1) We have examined micrometer-sized particles in cerebrospinal fluid (CSF) of twins and controls with schizophrenia, schizoaffective and bipolar disorder. We have found microscopic particles in the CSF of twins affected with schizophrenia and bipolar disorder. Also we have found that particles are more common in the non-affected co-twin1. Our next step is to analyze markers of microglia and inflammation (kynurenic acid and cytokines) in our sample and our goal is to identify diagnostic biomarkers as in the field of neurology.

2) In multiple sclerosis several biomarkers have been identified. By studying the presence of comorbidity between schizophrenia, bipolar disorder and multiple sclerosis as well as the genetic relationship by studying first degree relatives using the national health care registers of Sweden, we are able to decide the focus of a targeted biomarker discovery. Sweden has nation-wide registers of hospital treatment since 1973 and outpatient treatment from 2001 with high diagnostic validity. The total population in Sweden is about 9 million individuals and we have identified 25000 individuals with schizophrenia, 33000 individuals with Bipolar disorder and 17000 individuals with multiple sclerosis. We have preliminary results ready to be presented.

1 Johansson V, Nybom R, Wetterberg L, Hultman CM, Cannon TD, Johansson AG, Ekman CJ, Landén M. Microscopic particles in two fractions of fresh cerebrospinal fluid in twins with schizophrenia or bipolar disorder and in healthy controls. PLoS One. 2012;7(9):e45994. doi: 10.1371/journal.pone.0045994. Epub 2012 Sep 25.



AYŞE BURCU AYAZ

POSITION TITLE:

INSTITUTION AND LOCATION	DEGREE	FIELD OF STUDY
Sakarya University Training and Research Hospital	MD	Child Psychiatry

BIO SKETCH:

Ayşe Burcu Ayaz is working as a medical doctor in Sakarya University Training and Research Hospital, Child and Adolescent Psychiatry Clinic. She had participated in Cognitive Behavioral Therapy and Play Therapy in her residency and her area of interest is social problems in children with ADHD. She has been a member of Turkish Association of Child and Adolescent Psychiatry. To date, she has authored or co-authored seven publications in refereed journals.

SUMMARY PROJECT:

OXYTOCIN RECEPTOR GENE POLYMORPHISMS IN ATTENTION-DEFICIT/HYPERACTIVITY DISORDER

Oxytocin (OXT) system is defined in many of the regulating systems that investigate behavioral models. It has been suggested that intranasal OXT administration increases social behaviors, and has therapeutic potential for the treatment of a number of psychological disorders (Guastella and MacLeod 2012). There are studies reporting that genetic variations in OXTR gene may lead to susceptibility to autism. Wu et al. (2005) investigated 4 single nucleotide polymorphisms (SNP) in a Chinese sample diagnosed with autism and found a relation with rs2254298 and rs53576 SNPs in intron 3. In a recent case control study, Liu et al. (2010) found evidence of a relation between autism spectrum disorders and rs2254298/rs2268491 in a Japanese sample. In a study, consistent with the studies of Wu et al. (2005), many haplotype transmissions were detected containing "A" allele of rs53576 (Wermter et al. 2010). Although the relation between social dysfunctioning and autism is a much addressed issue, there are few studies investigating the potential relation between OXT system and ADHD. In a twin study, Ronald et al. (2008) reported that the correlation of phenotypic temperamental characteristics in autism and ADHD may be explained by genetic factors at the rates of %72 and %96, respectively. In our study, we planned to investigate the relation between some SNPs in OXTR gene (rs53576, rs13316193, and rs 2268493) and social dysfunctioning in ADHD and compare them with those in healthy controls. Children participating in the study will be diagnosed using Turkish version of Schedule for affective disorders and Schizophrenia for school age children-present and lifetime version (K-SADS). The parents will be administered sociodemographic form, and Social Reciprocity Scale (SRC) for the evaluation of social reciprocity skill.

1. Guastella AJ, MacLeod C. A critical review of the influence of oxytocin nasal spray on social cognition in humans: Evidence and future directions, Horm. Behav. (2012), doi:10.1016/j.yhbeh.2012.01.002

2. Liu X, Kawamura Y, Shimada T, Otowa T, Koishi S, Sugiyama T, et al. Association of the oxytocin receptor (OXTR) gene polymorphisms with autism spectrum disorder (ASD) in the Japanese population. J Hum Genet 2010,



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doi:10.1038/jhg.2009.140.

3. Ronald A, Simonoff E, Kuntsi J, Asherson P, Plomin R. Evidence for overlapping genetic influences on autistic and ADHD behaviours in a community twin sample. *J Child Psychol Psychiatry* 2008;49:535–42.
4. Wermter AK, Kamp-Becker I, Hesse P, Schulte-Körne G, Strauch K, Remschmidt H. Evidence for the involvement of genetic variation in the oxytocin receptor gene (OXTR) in the etiology of autistic disorders on high-functioning level. *Am J Med Genet B Neuropsychiatr Genet* 2010; 153B(2):629–39.
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SEHERYELI YILMAZ

POSITION TITLE:
MD

INSTITUTION AND LOCATION	DEGREE	FIELD OF STUDY
Istanbul University, Faculty of Medicine, Istanbul, Turkey (2002–2008)	MD	Medicine
Marmara University, Faculty of Medicine, Istanbul, Turkey (2009–...)	Residency	Child and Adolescent Psychiatry
Harvard Medical School, McLean Hospital, Boston, USA (2012)		Psychiatry Fellowship

BIO SKETCH:

Seheryeli Yilmaz is currently a 3rd year resident in Child and Adolescent Psychiatry Department in Marmara University, Faculty of Medicine. She got her medical degree in Istanbul University, Faculty of Medicine in 2008. She spent 6 months as a research fellow in Harvard University, McLean Hospital on first episode bipolar and schizophrenia patients. She has been a member of Turkish Medical Association and Turkish Psychiatric Association. To date, she has authored or co-authored six poster presentations.

SUMMARY PROJECT:

THE CHARACTERISTICS OF ADOLESCENT MOTHERS' ATTACHMENT STYLE AND THEIR OFFSPRINGS' DEVELOPMENT

Seheryeli YILMAZ¹, Yankı YAZGAN²

1.MD, Marmara University, Marmara University Faculty of Medicine, Child and Adolescent Psychiatry Department, Istanbul, Turkey

2.MD, Professor, Marmara University, Marmara University Faculty of Medicine, Child and Adolescent Psychiatry Department, Istanbul, Turkey; Asst Prof (Adj), Yale Child Study Center, New Haven, CT

Teen pregnancy is an increasing issue of concern in society. It has negative outcomes both on mother and the infant. In Turkey, not many studies have been conducted regarding prevalence or psychosocial and developmental consequences of teen pregnancies on the mother's and infant's development. Knowledge about teen pregnancy frequency and the role of Turkish culture on negative outcomes of adolescent pregnancies is scarce among Turkish youth population. This project aims to detect and identify adolescent mothers in a university hospital's catchment area, assess their mental health (in terms of the presence of a mental disorder and attachment styles), assess their children's developmental level, and identify any possible relationship between these variables. The district has both semi-rural and urban sites, and attracts waves of internal immigrants from the other cities. Findings are intended to inform strategies for community-based programs to assist teenage mothers' knowledge and competence in child development, so they can meet their children's developmental needs (age appropriate), and provide the psychosocial base for a secure attachment and optimal parenting. The ultimate aim of this preventive approach is improving health and mental health outcomes for young women and their children; improving women's use of community services, informal social support and health habits (Olds et al., 1986). This study will generate important information to develop a home based intervention to help the teenage mothers.



NATALIYA ZHABENKO

POSITION TITLE:

Postdoctoral student, State establishment "The Lugansk state medical university", department of psychiatry and addiction psychiatry based on Lugansk Regional Clinical Psychoneurological Hospital, Ukraine

Offsite Research Fellow, Fogarty International Substance Abuse Research Training Program, University of Michigan, Department of Psychiatry and Substance Abuse Section, Ann Arbor, MI, USA

INSTITUTION AND LOCATION	DEGREE	FIELD OF STUDY
Lugansk State Medical University Lugansk, Ukraine	MD	General Practitioner
Lugansk State Medical University Lugansk, Ukraine		Clinical Psychiatric Internship
University of Michigan Addiction Research Center and Substance Abuse Section in the Department of Psychiatry, Ann Arbor, Michigan		Addiction

BIO SKETCH:

Nataliya Zhabenko, M.D., is a Ph.D student at the State Establishment "The Lugansk state medical university", Ukraine. She received her MD in 2006, she completed her residency in psychiatry in 2008. She also completed a year of research addiction training in the United States, she has been a Fogarty Research



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Fellow at the Substance Abuse Section at the University of Michigan (2010–2011). Her research interests focus on psychiatric aspects of HIV, addictions and insomnia. Nataliya Zhabenko has authored and coauthored two peer-reviewed papers in the international journals, and greater than 15 publications in the national journals, 11 scientific presentations, invited presentations, and posters.

SUMMARY PROJECT:

ATTITUDES TOWARD PEOPLE WITH HIV OR AIDS

AIDS is one of diseases that has been stigmatized since its development, stigmatization of people living with HIV is an important barrier to using HIV testing and treatment. Stigma and discrimination can occur at all levels of a person's daily life and can be associated with different health-related problems. Ukraine is a country with one of the highest number of annual HIV infections. The goal of this study was to evaluate medical practitioners' and nonmedical specialists' attitude toward people with HIV/AIDS. Acceptance of people who have AIDS or are infected with HIV was assessed with the help of the "Attitudes toward people with HIV or AIDS". Total scores range from 50 to 10, higher scores indicate high acceptance of persons with HIV/AIDS. A total of 180 individuals participated in the study. Younger participants reported higher acceptance of persons with HIV or AIDS ($p < .05$). Females and males did not differ in terms of attitudes toward people living with HIV/AIDS ($p > .05$). Medical practitioners showed greater total score, compare to nonmedical specialists (38.0 ± 6.0 vs. 34.0 ± 5.5 , respectively, $p < .05$). There was not a statistically significant difference at the level in total score for surgeons, therapists, psychiatrists and students. In conclusion, young age and having medical education were significantly associated with the positive attitudes toward people with HIV/AIDS.



MATTHEW PRINA

POSITION TITLE:

Research Associate

INSTITUTION AND LOCATION	DEGREE	FIELD OF STUDY
University of Glasgow, UK	BSc (Hons)	Immunology
University of Cambridge, UK	MPhil	Epidemiology
University of Cambridge, UK	PhD	Public Health & Primary Care

BIO SKETCH:

Matthew graduated from the University of Glasgow before moving to Cambridge to pursue an MPhil in Epidemiology. During his masters he started working on the 10/66 study with Prof Martin Prince at the Institute of Psychiatry, a collaboration that is still ongoing. He has recently submitted and defended his Doctoral thesis at Pembroke College, University of Cambridge, titled "An investigation of common mental disorders and health services

in later life' under the supervision of Prof. Carol Brayne and Dr. Tom Dening. He is currently based at the Institute of Public Health in Cambridge, but he collaborates with institutions in Africa, South America, Australia and Europe. Matthew is particularly interested in large epidemiological studies that look at mental health in older age, and he has been involved in several projects using large international cohorts of ageing such as the UK MRC Cognitive Function and Ageing Studies (CFAS), the Australian Longitudinal Assessment of Ageing in Women (LAW) Study, the Longitudinal Aging Study Amsterdam (LASA), the Health in Men Study (HIMS) and the 10/66.

SUMMARY PROJECT:

Background: Studies that have investigated the relation between depression and the type, nature, extent and outcome of general hospital admissions have been limited by their retrospective designs and focus on specific clinical populations. We explored this relation prospectively in a large, community-based sample of older men.

Methods: A cohort of 5411 men aged 69 years and older enrolled in the Health in Men Study was assessed at baseline for depressive symptoms, defined as a score of 7 or higher on the 15-item Geriatric Depression Scale. Participants were followed for 2 years for occurrence and number of hospital admissions, type of hospital admission, length of hospital stay and inpatient death as recorded in the Western Australian Data Linkage System.

Results: Of 339 men with depressive symptoms, 152 (44.8%) had at least 1 emergency hospital admission, compared with 1164 of 5072 (22.9%) nondepressed men ($p < 0.001$). In multivariate analyses, the presence of depressive symptoms was a significant independent predictor of hospital admission (hazard ratio 1.67, 95% confidence interval [CI] 1.38–2.01), number of hospital admissions (incidence rate ratio [IRR] 1.22, 95% CI 1.07–1.39) and total length of hospital stay (IRR 1.65, 95% CI 1.36–2.01).

Interpretation: Participants with depressive symptoms were at higher risk of hospital admission for non-psychiatric conditions and were more likely to have longer hospital stays and worse hospital outcomes, compared with non-depressed participants. These results highlight the potential to target this high-risk group to reduce the burden of health care costs in an aging population.



PETER MUSIAT

POSITION TITLE:

Postdoctoral Researcher

INSTITUTION AND LOCATION	DEGREE	YEAR(S)	FIELD OF STUDY
Dresden University of Technology, Dresden, Germany	MSc	2002–2008	Clinical psychology, organizational psychology, law
King's College London, Institute of Psychiatry, London, UK	PhD	2009–2012	E-mental health



BIO SKETCH:

My name is Peter Musiat and I am currently working as a postdoctoral researcher at the Institute of Psychiatry, King's College London. After studying psychology in Dresden, Germany, I relocated to the UK to start my PhD at the Institute of Psychiatry. During this PhD at the Eating Disorders Section of the Institute, I developed and evaluated a trait-focused, web-based prevention programme for common mental disorders in students (supervision Prof. Ulrike Schmidt). The aim of this project was to develop a transdiagnostic intervention that focuses on shared risk factors of common mental disorders, such as depression, anxiety, substance abuse or eating disorders. The results will contribute to numerous papers, some of which have been published or are under review. During my time as a PhD student I have also worked clinically as an honorary therapist at the Maudsley Hospital Eating Disorders outpatient service and I currently lead weekly self-help group session for students with an eating disorder. Given my strong interest in e-mental health, self-help and prevention, I started a postdoctoral research position at the Institute of Psychiatry aiming to promote and facilitate e-health research at King's College London.

SUMMARY PROJECT:

PREVENTION OF COMMON MENTAL HEALTH PROBLEMS IN UNIVERSITY STUDENTS; RCT OF A TRANSDIAGNOSTIC TRAIT-FOCUSED WEB-BASED PREVENTION PROGRAM

Objective: To evaluate the efficacy of a transdiagnostic trait-focused web-based intervention aimed at preventing common mental disorders (depression, anxiety, substance misuse disorders and eating disorders) in university students. **Method:** Participating students recruited online ($n = 1047$, age: $M = 21.8$, $SD = 4.2$) were categorized into those at high or low risk of mental disorder based on their personality traits. Students were randomly allocated to either a cognitive-behavioral trait-focused ($n = 519$) or an active control intervention ($n = 528$). Both interventions were fully automated and delivered online. Outcomes were self-assessed at baseline as well as at 6 weeks and 12 weeks after the intervention. The primary outcomes were symptoms of depression and anxiety, assessed on the Patient Health Questionnaire and Generalized Anxiety Disorder Scale. A range of secondary outcome measures focused on alcohol and substance use, disordered eating, and other outcomes. **Results:** Students at high risk were successfully identified using personality indicators and reported poorer mental health than students at low risk. Mixed effects analyses (intention to treat) revealed that the trait-focused intervention reduced depression and anxiety, particularly in students at high risk and these improvements were clinically significant. In addition, self-esteem and psychological health were improved. No changes were observed regarding the use of alcohol or disordered eating and attrition was high (62%). **Conclusions:** This study provides preliminary support for the efficacy of a transdiagnostic web-based intervention for university students targeting underlying personality risk factors as an efficient way of preventing common mental disorders.



WILLIAM PETERSSON-YEO

POSITION TITLE:

POST-DOCTORAL RESEARCHER, Dept. of Psychosis, Institute of Psychiatry, King's College London

INSTITUTION AND LOCATION	DEGREE	FIELD OF STUDY
King's College London, Uk	BSc (Hons)	Neuroscience
Institute of Psychiatry, King's College London, Uk	PhD	Neuroimaging and Psychosis

BIO SKETCH:

For my undergraduate studies I completed a BSc (Hons) in Neuroscience at King's College London (2005–2008). The course's main focus was on the functioning of the human central nervous system in both normal physiological, and also pathophysiological, states investigated both at the cellular and systems level. In my final year I specialized in cognitive neuropsychology for which I produced a dissertation investigating the differential effects of Schizophrenia associated genotypes on neural activation in adolescents during the 'GoNoGo' paradigm. Subsequently, between 2009–2012, I undertook a PhD with Dr Andrea Mechelli at the Institute of Psychiatry, King's College London, again focusing on the neuroimaging of psychosis. Specifically, the focus of my doctoral work was to investigate whether those who had experienced a first episode of psychosis, and those thought to be at increased risk of developing psychosis in the near future, could be differentiated from control subjects, and/or each other, at the level of the individual, using either genetic, neuroimaging, and/or cognitive data in conjunction with multivariate machine learning analysis, and whether the capacity for this differentiation might be enhanced through the integration of different data types.

SUMMARY PROJECT:

NUMEROUS STUDIES REPORT SIGNIFICANT BIOLOGICAL AND COGNITIVE ALTERATIONS IN CHRONIC SCHIZOPHRENIA (CHSZ) PATIENTS RELATIVE TO HEALTHY CONTROLS (HCS)

More recently, similar, albeit less severe, changes have been reported in subjects with a recent first episode of psychosis (FEP), and those at clinical high-risk, referred to as the at-risk mental state (ARMS). The clinical impact of such findings has been limited, however, driven in part by the univariate analyses employed by the majority of studies, which allow inference at the group level only. Support vector machine (SVM) is one alternative multivariate analysis, which, able to provide inference at individual level, has high potential for translation into a clinical setting. Here, we employed a multimodal approach comprising genetic, structural magnetic resonance imaging (sMRI), diffusion tensor imaging, functional MRI, and cognitive data, in order to investigate the capacity of each modality to distinguish FEP and ARMS subjects from HCs, and each other, both at the group, and the single-subject level, using standard univariate and multivariate SVM analyses respectively. Since the clinical potential of SVM is ultimately governed by its classification accuracy, we also



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performed an empirical comparison of four integrative methods, proposed to enhance classification through data integration. Collectively, the results provide relative support to the notion that FEP and the ARMS may be characterised by genetic, neuroanatomical, neurofunctional and/or cognitive alterations similar to those previously observed in ChSz, albeit less severe. With respect to neuroanatomy, and neurofunction moreover, they suggest such changes may be both subtle, and spatially diffuse. The achievement of only modest classification accuracies, however, suggest that the modalities investigated here have only limited diagnostic power with respect to early-stage psychosis, though it remains that they may be able to provide useful information for predicting conversion to psychosis or treatment outcome, a prospect which could be investigated by future studies.



ROHAN BORSCHMANN

POSITION TITLE:
STUDY MANAGER

INSTITUTION AND LOCATION	DEGREE	FIELD OF STUDY
La Trobe University; Melbourne, Australia	Bachelor of Behavioural Science	Psychology
University of Ballarat; Ballarat, Australia	Postgraduate Diploma	Psychology
James Cook University; Queensland, Australia	Clinical Doctorate	Clinical Psychology
King's College London; London, UK	PhD (not yet complete)	Psychiatry

BIO SKETCH:

Rohan is a clinical psychologist with a range of both research and clinical experience. He has worked in several community health settings in Australia and Canada, in addition to a variety of rehabilitation agencies and as a psychologist within the Australian prison system. After completing his doctorate in clinical psychology in Australia in 2005, Rohan worked as a researcher at the Institute of Health Promotion Research in Vancouver in 2005-06, before joining St George's University of London as a Research Fellow in 2006 and the Institute of Psychiatry in 2008. Rohan is currently working on two studies; the first is his current PhD study, which is a Medical Research Council-funded RCT investigating the impact of joint crisis plans (JCPs) on self-harm behavior in outpatients diagnosed with borderline personality disorder. The second study is investigating the prevalence of violence and victimisation amongst those in the community who suffer from mental health problems.

SUMMARY PROJECT:

JOINT CRISIS PLANS (JCPs) FOR PEOPLE WITH BORDERLINE PERSONALITY DISORDER WHO HAVE SELF-HARMED

Background: People with borderline personality disorder (BPD) frequently experience crises, resulting in episodes of self-harm. To date, no randomised controlled trials of crisis interventions for this population have been published. **Aims:** To examine the feasibility of recruiting and retaining a sample of adults with BPD to a pilot randomised controlled trial investigating the potential efficacy and cost-effectiveness of using a joint crisis plan to reduce self-harming behaviour. **Methods:** A randomised controlled trial of joint crisis plans for community-dwelling adults meeting DSM-IV criteria for BPD was conducted. The primary outcome measure was the occurrence of self-harming behaviour over the six-month period following randomisation. Secondary outcomes included depression, anxiety, engagement and satisfaction with services, quality of life, well-being and cost-effectiveness. **Results:** Eighty-eight adults out of the 133 referred were eligible, provided written informed consent and were randomised to receive a joint crisis plan in addition to treatment-as-usual (TAU; N = 46) or TAU alone (N=42). This represented approximately 75% of our target sample size and follow-up data were collected on 73 (83.0%) participants. Intention-to-treat analysis revealed no significant differences in the proportion of participants who reported self-harming (odds ratio: 1.9, 95%CI: .9, 0.53 - 6.5; p=0.33) or the frequency of self-harming behaviour (rate ratio: 0.74, 95%CI: 0.4 - 1.63; p=0.46) between the two groups at follow-up. No significant differences were observed between the two groups on any of the secondary outcome measures or costs. **Conclusions:** Whilst it is feasible to recruit and retain people with BPD to a trial of joint crisis plans and the intervention appears to have high face validity with this population, we found no evidence of clinical efficacy in this feasibility study.

This trial was supported by a Medical Research Council (MRC) trial platform grant (ID: 85397) in the UK and conducted through the Institute of Psychiatry at King's College London, United Kingdom



SARA EVANS-LACKO

POSITION TITLE:

Lecturer, Institute of Psychiatry,
King's College London

INSTITUTION AND LOCATION	DEGREE	YEAR(S)	FIELD OF STUDY
University of Michigan	BSc	2002	Biopsychology and Cognitive Science
Johns Hopkins Bloomberg School of Public Health	MHS	2003	Mental Health (Psychiatric epidemiology)
Johns Hopkins Bloomberg School of Public Health	PhD	2007	Health Policy and Management
King's College London, Institute of Psychiatry	Post-doc	2007-11	Mental Health Services



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BIO SKETCH:

Dr. Evans-Lacko is a Lecturer at King's College London, Institute of Psychiatry (IoP) and also a Visiting Professor at Mackenzie University in Sao Paulo, Brazil. She has a particular interest in the role of health services and social support in the prevention and treatment of mental illness. Her future research plans are to advance innovative methods to improve access to and quality of mental health care for young people and cross-cultural applications of this. She also works on the evaluation of public health interventions such as England's Time to Change anti-stigma campaign which aim to improve important changes at the population level. Prior to joining the IoP, she worked as a health care consultant for the National Institute of Mental Health (NIMH, USA). She has an M.H.S. in psychiatric epidemiology and PhD in Health Policy and Management, from the Johns Hopkins Bloomberg School of Public Health where she had a fellowship in child, adolescent and family health services and systems research. To date she has authored or co-authored more than 30 peer reviewed publications.

SUMMARY PROJECT:

IMPROVING ADOLESCENT ENGAGEMENT WITH MENTAL HEALTH CARE – LEARNING FROM PATTERNS OF FORMAL AND INFORMAL CARE

The aim of this research is to produce a body of evidence that illustrates how young people with mental health problems currently interact with both formal mental health services and informal social and familial support structures. Careful analysis of data gathered from a community cohort of young people will allow the formulation of relevant insights into mental health and social care delivery for this vulnerable group of individuals, which will be presented as a resource for future health and social care service design and policy making. Whilst standard analysis has allowed for snapshots of health service use, using innovative sequencing and cluster analysis methods we will characterise each individual participant's experience of accessing formal mental health care and informal social support. This ground-breaking and interdisciplinary combination of research methodologies will broaden the yield of our data and provide a far greater depth of analysis. For the proposed project, I will conduct analyses using quantitative survey data, medical records and qualitative interview data from an existing community cohort of young people. In addition to investigating predictors of care pattern variation and associated outcomes (e.g., mental health functioning, likelihood of serious psychiatric disorder during late adolescence and / or adulthood, emergency inpatient or forensic service use, substance abuse and school achievement), I will also perform economic evaluation of the impact of improving initial access or continuity of care. Longitudinal data on care patterns and mental health will allow for investigation of short and medium term impact. Simulation modeling of findings will allow for estimation of longer term impact.



ANDREA CARMEN FERNANDES

POSITION TITLE:

Part-time Masters Student/
Administrator

INSTITUTION AND LOCATION	DEGREE	YEAR(S)	FIELD OF STUDY
Sandford International School, Addis Ababa, Ethiopia	International Baccalaureate	1997-2005	Maths/ Sciences/ Languages/ Economics
King's College London, London, United Kingdom	BSc	2005-2008	Medical Biochemistry
King's College London, London, United Kingdom	MSc	2010-present	Psychiatric Epidemiology

BIO SKETCH:

I have been working at London's leading research centre – the NIHR Biomedical Research Centre Nucleus – for the last three years as a CRIS system administrator. My interests have largely evolved around youth mental health in developing countries and under – served populations here in the United Kingdom. I have worked on various research projects with the aim to contribute to the literature on mental health among youth and refugees. I undertook a Masters to obtain a formal qualification in Psychiatric Epidemiology and I am currently leading on a systematic review on youth suicides in Asia for which I was awarded the prestigious BRC Travel Fellowship in 2011 to present preliminary results at the International Association of Suicide Prevention in China. My interest in this particular project arose from secondary data analysis we conducted on a youth sample from Goa in India. This project offers a chance to explore the effects of an intervention for a group of people that are potentially restricted by society to not disclose traumatic and very stigmatizing experiences. We can better modify, improve or facilitate the access to services to such individuals depending on the results of this intervention.

Publications:

Fernandes A, Hayes RD, Patel V. Abuse and other correlates of common mental disorders in youth: a cross-sectional study in Goa, India. *Social Psychiatry and Psychiatric Epidemiology*, (Corresponding author Patel V, impact factor 2.97 in press 16 Oct 2012)

Fernandes A, Hayes RD, Patel V. Abuse and other correlates of common mental disorders in youth: a cross-sectional study in Goa, India. *Social Psychiatry and Psychiatric Epidemiology*, (Corresponding author Patel V, impact factor 2.97 in press 16 Oct 2012)

Hayes RD, Chang C-K, Fernandes AC, Begum, A, To D, Broadbent M, Hotopf M, Stewart R. Functional status and all-cause mortality in serious mental illness *PLoS ONE* 2012 (Corresponding author Hayes RD, Impact Factor:4.41, in press)



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August 6, 2012)

Hayes RD, Chang C-K, Fernandes A, Begum, A, To D, Broadbent M, Hotopf M, Stewart R. Associations between symptoms and all-cause mortality in individuals with serious mental illness. *Journal of Psychosomatic Research*. 2012, 72(2), 114-119 (Corresponding author Hayes RD, impact factor 2.84)

Hayes RD, Chang C-K, Fernandes A, Broadbent M, Lee W, Hotopf M, Stewart R. Associations between substance use disorder sub-groups, life expectancy and all-cause mortality in a large British specialist mental healthcare service. *Drug and Alcohol Dependence* 2011, 118, 56– 61 (Corresponding author: Hayes RD, Impact Factor: 3.37, Citations: 2)

Chang C-K, Hayes RD, Perera G, Broadbent MTM, Fernandes AC, Lee WE, Hotopf M, and Stewart R. Life expectancy at birth for people with serious mental illness from a secondary mental health care case register in London, UK *PLoS ONE* 2011 6(5) (Corresponding author: Chang C-K, Impact Factor: 4.41, Citations: 3)

Chang CK, Hayes RD, Broadbent M, Fernandes A, Lee W, Hotopf M, Stewart R. All-cause Mortality among People with Serious Mental Illness (SMI), Substance Use Disorders, and Depressive Disorders in Southeast London: a cohort study. *BMC Psychiatry* volume 10, September 24, 2010. (Corresponding author: Chang CK, Impact Factor: 2.89, Citations: 10)

SUMMARY PROJECT:

THE ACCEPTABILITY, FEASIBILITY AND EFFECTIVENESS OF AN ANONYMOUS TELEPHONE PSYCHOTHERAPY COUNSELING SERVICE FOR MALE VICTIMS OF PHYSICAL AND SEXUAL ABUSE IN THE COMMUNITY – A GENDER-SENSITIVE APPROACH TO HELPING MALE VICTIMS OF ABUSE

In recent times, with the spate of disclosed cases of male victims of abuse, it is acknowledged that there are not enough treatment options or interventions adapted towards helping male victims relative to female victims. The aim, hence, of this intervention is to determine the feasibility, acceptability and effectiveness of an anonymous telephone psychotherapy counseling service for male victims of physical and sexual abuse in the community using an exploratory randomized controlled trial. Set in the Indian capital state of Delhi, within metropolitan urban, rural and slum community populations, two urban communities will be (as similar to each other as possible to account for confounding) would be randomly selected. The telephone counseling service will be provided in one of the communities. Male individuals in community aged between 18 to 24 years old. The intervention will consist of five trained psychotherapists, who have attended training in gender-specific therapy for abuse victims. They will be set up in a hotline centre available 9 to 5pm. For out of hours contact a voicemail service will set up to ask caller to leave a set date and time for therapists to contact them. The voicemail will inform caller that they are not obliged to answer the call when therapists do get in touch in the event they change their mind. In addition, no caller ID will be installed and the caller will be informed of this as well. Based on and recommendations from Tsui et al standard psychotherapy procedures will be used as counseling for those contacting the anonymous hotline. The same households will be approached at follow up and only Measure prevalence and depression and anxiety using the same questionnaire. We hypothesise, compared to no intervention group, intervention group will have significantly improved outcomes on depression, anxiety, substance misuse and violence perpetration (towards siblings, peers or others).



**EFSTATHIOS
PAPACHRISTOU**

POSITION TITLE:

PhD Student

INSTITUTION AND LOCATION	DEGREE	FIELD OF STUDY
Medical School of Hanover, Hanover, Germany		Medicine
Deree College, The American College of Greece, Athens, Greece	BA (Hons)	Psychology
University College London, London, U.K.	MSc	Health Psychology
Institute of Psychiatry, King's College London, London, U.K.	PhD	Psychiatric Epidemiology

BIO SKETCH:

After training for three years in the Medical School of Hanover, I obtained a BA(Hons) in Psychology in Deree College, The American College of Greece. Next, I completed a MSc in Health Psychology in the University College of London (UCL), whereby I received a distinction for my work on personality clusters and the health related quality of life of patients with Non-Epileptic Attack Disorder. I joined Prof. Frangou's Group in the section of Psychosis Studies in the Institute of Psychiatry, King's College London in January 2010 and I am currently finalizing my PhD in the area of psychiatric epidemiology. Initial results of the PhD have been published in high impact peer-reviewed journals and I have been offered travel awards to present the results in key meetings including the Society of Biological Psychiatry (SOBP) meeting in 2012 in Philadelphia, PA, USA. Concurrently, I am the leading academic tutor for postgraduate students and I am involved as a research fellow in an international EU funded project. My main research interests include the pathogenesis and the developmental progression of bipolar disorder as well as the statistical modeling and advanced analytical techniques for longitudinal study designs. My current work involves the examination of the interplay of familial and non-familial risk factors with syndromal and subsyndromal manic symptomatology trajectories during childhood, adolescence and early adulthood.

SUMMARY PROJECT:

Much of the disability associated with Bipolar Disorder (BD) is linked to the early onset of the disorder. Therefore, it is important to identify individuals at high risk for BD as early as possible, as this may allow for early intervention and reduced burden. This presentation will focus on our recent study that aimed to examine the longitudinal relationship between parental reports of manic-like symptomatology in childhood and manic disorder in early adulthood in a representative community sample of children and adolescents.

We analyzed data from TRAILS (TRacking Adolescents' Individual Lives Survey), a prospective population-based study of 2,230 Dutch adolescents. Measurements of mania-like behavioral disturbance at age 11 were based on



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the Child Behavior Checklist- Mania Scale (CBCL-MS). Clinical assessments of mental disorders using the Composite International Diagnostic Interview (CIDI) were conducted at age 18 years. Forty-two cases meeting criteria for mania between ages 12 and 18 years were identified using the CIDI.

A Latent Class Analysis (LCA) using the 19 items of the CBCL-MS as class indicators extracted three classes; a 'low risk' (n=856), a 'moderate risk' (n=838) and a 'high risk' class (n=191) for BD. The risk for BD was 6.6-fold higher for children in the 'high risk' class (OR: 6.63, 95%CI 2.69-16.35) compared with the 'low risk' class. The high-risk class was also characterized by a confluence of familial and non-familial risk-factors. Age-11 subsyndromal mania-like behaviors predicted mania but not major depressive disorder, general anxiety disorder or substance abuse suggesting specificity of prediction to mania.

These findings suggest a simple and reliable assessment of manic symptoms in childhood may provide means to identify children at ultra high risk to develop mania. As non-pathological phenotypic expression of manic-like behavior in childhood is linked to the onset of BD in adolescence there is a window for early interventions.



NANCY LIU

POSITION TITLE:
Postdoctoral Fellow

INSTITUTION AND LOCATION	DEGREE	FIELD OF STUDY
Trinity University	B.A.	Psychology/ Philosophy/ Sociology/ Religion
University of Nebraska, Lincoln	M.A.	Clinical Psychology
University of Nebraska, Lincoln	PhD	Clinical Psychology
University of California, San Francisco	Internship	Clinical Psychology
University of California, San Francisco	Post-Doc	Clinical Psychology

BIO SKETCH:

The goal of my research is to implement cognitive-behavioral treatment (CBT) and other evidence-based interventions for women's mental health in resource-poor settings. I seek to do this through studying the following areas: 1) integrate CBT with primary and other medical care; 2) use of the internet and mobile technology to bolster effectiveness and improve patient adherence; and 3) investigate the role of poverty alleviation strategies. The proposed research plan will allow me, as principal investigator, to target the first two goals. My academic training and research experiences have given me an excellent background for this line of research. I have significant global mental health experience. Under a Fulbright to Beijing, I worked with Dr. Michael R. Phillips in depression and suicide prevention in China's rural areas

and co-authored 3 papers from this work. As an NIH/Fogarty International Clinical Research Scholar, I worked at a Cochrane Collaboration Center in Buenos Aires and published a systematic review on maternal health with my Argentine colleagues. I also worked closely with Drs. Geoffrey Reed, Michael First, and Assen Jablensky at the WHO in Geneva on revisions for ICD-11. At UCSF, I am examining how to use technology (e.g., Internet) to make mental health resources more accessible under Dr. Ricardo Muñoz. I recently launched a Chinese language, Internet-based mood and suicide screener to demonstrate proof-of-concept for this approach.

SUMMARY PROJECT:

This study will examine the use of a technology-enhanced cognitive-behavioral intervention "Mamás y Bebés" (eM&B) to prevent post-partum depression (PPD) in low-income, Spanish-speaking Latinas receiving their primary medical care at a large county hospital serving primarily underserved and uninsured populations. Eligible women will receive an evidence-based skills training aimed at stress management and half of the participants will be randomized to a eM&B to examine whether this improves application of skills and improvement in mood. We aim to 1) assess the feasibility of implementing a technology-enhanced CBT prevention (i.e., eM&B) in this population, 2) test whether the eM&B reduces depressive symptoms over time compared to regular cognitive-behavioral therapy (i.e., M&B) alone, and 3) for women who endorse symptoms of PTSD in both groups, test whether either intervention will improve symptoms of PTSD. We expect that 1) participants in eM&B will report a significant reduction in depressive symptoms during the postpartum period when compared to participants in the usual M&B course, 2) participants with a high risk for developing a major depressive episode in the eM&B will report a lower rate of PPD during the follow-up period than participants with a high risk of MDE assigned to M&B, 3) for women who endorse PTSD symptoms, both eM&B and M&B will improve symptoms of PTSD from baseline to follow-up in both groups.



**LUCIA MONSERRAT
ALBA-FERRARA**

POSITION TITLE:
Postdoctoral Fellow at the Department of Psychiatry and Neuroscience, University of South Florida (USA); MRI unit director, ISLN, FULTRA (Argentina)

INSTITUTION AND LOCATION	DEGREE	YEAR(S)	FIELD OF STUDY
University of Buenos Aires, Argentina	Diploma (BSc+MSc)	05/2004	Psychology
University College London, UK	MSc	09/2006	Cognitive Neuropsychology
University of Durham, UK	PhD	08/2011	Cognitive Neuroscience



INTERNACIONAL STUDENTS OF THE Y-MIND ADVANCED SCIENCE SCHOOL

BIO SKETCH:

I graduated with honors as a clinical psychologist from University of Buenos Aires (Argentina) in 2004. A year Later, I moved to the United Kingdom to study a MSc in Cognitive Neuropsychology at University College London. I worked on a research project examining the effects of top-down and bottom-up processes in auditory speech perception by applying an fMRI paradigm. Subsequently, I was appointed as a research assistant at the University of Bonn (Germany). There, I was involved a project about the correlation of functional language dominance and cortical structural measures in medial temporal lobe epilepsy. In 2008, I enrolled on a PhD program at Durham University (United Kingdom) and I completed my doctoral degree (PhD) in 2011. While working on my PhD thesis, I studied the neural underpinnings of emotional prosody processing in healthy controls as well as in the schizophrenia spectrum applying a diversity of techniques (fMRI, rTMS, behavioral measures, etc). This work led to five quality publications. After finishing my PhD, I moved to the USA for a postdoctoral fellowship in the Roskamp Lab. at the department of Psychiatry and Neuroscience of USF. Here I am continuing to learn about Transcranial Magnetic Stimulation and Deep Brain Stimulation, and their application as therapeutic tools in the treatment of substance abuse disorders. This research assesses the feasibility and effectiveness of targeting different nodes of the brain reward system to ameliorate cravings which has already led to a publication.

I have presented my work in several international conferences, including three in which I was invited as a speaker. I am also an ad hoc reviewer for the journals Psychological Medicine, Schizophrenia Research and PlosOne, and an ad hoc grant reviewer for the Swiss National Science Foundation (SNSF).

SUMMARY PROJECT:

IMAGING DOPAMINERGIC PROJECTION ABNORMALITIES IN UNTREATED SCHIZOPHRENIA SUBJECTS AND UNAFFECTED FIRST DEGREE RELATIVES: TOWARDS CONSTRUCTING AN ENDOPHENOTYPE

Objective: Parkinsonism is present in ~30% of patients with never-treated schizophrenia and it predicts greater susceptibility to neuroleptic side effects. Parkinsonism in schizophrenia is a heritable trait independent of clinical state. The pathogenesis of parkinsonism is related to neuronal loss in dopaminergic circuits of the substantia nigra and ventral tegmental area. We have identified a population of patients with schizophrenia that are neuroleptic naïve and have shown that parkinsonism and its associated deficits have characteristics of an endophenotype in first degree relatives. We investigated white matter tracts of dopaminergic networks in schizophrenia patients and their unaffected relatives by using DTI. Design: 3 medication naïve schizophrenia patients (SZ), 5 first degree relatives and 3 healthy matched controls underwent a diffusion weighted MRI scan. Left and right substantia nigra pars compacta and ventral tegmental area were traced manually and selected as ROIs. Fractional anisotropy (FA) and number of fibers for each ROI were calculated. Results: A discriminant analysis revealed that FA and number of fibers were able to classify 52% of the cases accurately. Moreover, there was a numerical difference by which schizophrenia subjects had increased FA and decreased fiber density in all ROIs in comparison to controls. First degree relatives FA and number of fiber values were in between patients and controls. Conclusion: This preliminary data illustrates the neural bases of motor dysfunction in schizophrenia, suggesting an endophenotype. Further data is currently being collected.



RICHARD SANG UN LEE

POSITION TITLE:

Instructor of Psychiatry

INSTITUTION AND LOCATION	DEGREE	YEAR(S)	FIELD OF STUDY
Johns Hopkins University	B.S.	1996	Biomedical Engineering
Johns Hopkins University School of Medicine	Ph.D.	2007	Molecular Biology and Genetics
Johns Hopkins University School of Medicine	Postdoc-toral	2010	Psychiatry

BIO SKETCH:

My research interest is to build foundational knowledge and a better understanding of causes of stress-related mental disorders by demonstrating involvement of HPA-axis genes in mood disorders. My program stems from my ongoing work on Fkbp5, and thus form the rationale of my "next logical steps" in translational research. My initial inquiry to determine the epigenetics of stress hormone action on HPA-axis genes led to the identification of an intronic region of Fkbp5 that undergoes substantial DNA methylation in response to glucocorticoids. By focusing on this crucial stress-response gene in rodent models, I made several discoveries that link together glucocorticoid exposure, physiological changes, persistence of DNA methylation change, and mood-related behavior. For instance, I have demonstrated that a single drop of blood can be used to determine degree of exposure of mouse brains to glucocorticoids, which has enormous translational potential given the strong association between glucocorticoid exposure and mood disorders. My next hypothesis then is to ask whether homologous regions in human brain tissues undergo stress-induced epigenetic changes and whether these regions are altered in stress-related neuropsychiatric illnesses. My research program utilizes cutting-edge techniques in epigenetics, along with innovative approaches in translational neuroscience, which were honed under the mentorship of the world-renowned epigeneticist Dr. Andy Feinberg, and given a psychiatric imperative under the guidance of Dr. Jimmy Potash (current chairman of psychiatry at the University of Iowa). In addition, the unique environment that exists at Hopkins has given me the opportunity to garner the support of powerful collaborators in psychiatry (Dr. Fernando Goes), neuroendocrinology (Dr. Gary Wand), large-scale epigenomics (Drs. Sarven Sabuncian and Andy Feinberg), and bioinformatics (Dr. Peter Zandi). I am confident that my background and experience will be of great value to Y-Mind, and that I, in turn, will benefit greatly from the scientific community at Sao Paulo.

SUMMARY PROJECT:

TISSUE-SPECIFIC ALTERATIONS IN DNA METHYLATION OF FKBP5 AS A DETERMINANT OF BLOOD-BRAIN CORRELATION OF GLUCOCORTICOID EXPOSURE IN MICE



INTERNACIONAL STUDENTS OF THE Y-MIND ADVANCED SCIENCE SCHOOL

Erin R. Ewald 1,2, Fayaz Seifuddin1,2, Xiaojun Yang 3, Gretha Boersma 1,2, Kellie L. Tamashiro 1,2, Peter Zandi1,2,4, James B. Potash 5, Timothy H. Moran 1,2, Gary S. Wand 2,3, Richard S. Lee1,2,*

1The Johns Hopkins Mood Disorders Center, 2Department of Psychiatry and Behavioral Sciences,

3Department of Medicine, Division of Endocrinology, of the School of Medicine, and

4Department of Mental Health of the Bloomberg School of Public Health, Johns Hopkins University, Baltimore, MD.

5Department of Psychiatry, University of Iowa Hospitals and Clinics, Iowa City, IA.

Several lines of evidence suggest that chronic exposure to high levels of iatrogenic or endogenous glucocorticoids (GCs) poses a significant risk factor for mood disorders. Therefore, it is important to be able to measure exposure to GCs, or GC burden, in order to assess risk for mood disorders and to administer patient-tailored steroid medications. However, calculating this burden is challenging, given that existing measures reflect GC exposure over a short duration and have not been proven to reliably quantify the burden over weeks or months. Indeed, this problem has hampered population-based studies attempting to identify a neuroendocrine link between GC exposure and metabolic and neurologic dysregulation. What we need are peripheral tissue biomarkers of GC exposure that can more accurately capture GC burden in the brain. Of great clinical relevance is the use of blood tissue as a potential biomarker and surrogate tissue for exposure-induced changes in the brain, since brain tissues in living humans are mostly inaccessible. In this project, we provide proof-of-concept and empirical evidence of blood-brain correlation of glucocorticoid exposure and investigate the role that tissue-specific DNA methylation plays in shaping this relationship. We utilize a mouse model of Cushing's syndrome, in which adolescent male mice are given high doses of corticosterone for four weeks, and their blood and brain tissues are examined for DNA methylation changes. We focus on two bioinformatically and functionally characterized glucocorticoid-response elements in two intronic regions of the stress-response gene *Fkbp5*. Blood DNA methylation changes in intron 1 of *Fkbp5* show the strongest correlation to four-week mean plasma corticosterone levels ($R^2 = 0.78$, $P = 9.7 \times 10^{-9}$), whereas methylation changes in intron 5 in all four brain regions tested, i.e. amygdala, hippocampus, hypothalamus, and prefrontal cortex, show the strongest correlation ($R^2 \geq 0.55$, $P \leq 3.9 \times 10^{-5}$). Consequently, additional analysis reveals that same CpG-to-CpG blood-brain comparisons are characterized by poor correlation between the CpGs and/or absence of robust DNA methylation differences at those CpGs between treated and untreated animals. Taken together, our results demonstrate that GC-induced epigenetic changes in blood can be used as a surrogate for those of brain tissues, and that this relationship is determined by tissue-specific alterations in DNA methylation.



PAMELA SCORZA

POSITION TITLE:

5th year doctoral student

INSTITUTION AND LOCATION	DEGREE	YEAR(S)	FIELD OF STUDY
New York University	BA	2005	Anthropology
University of Ghana	MPH	2007	Public Health
Harvard School of Public Health	Doctor of Science	2013	Department of Global Health and Population, with a focus on global mental health

BIO SKETCH:

Pamela Scorza is a Doctor of Science candidate in the Department of Global Health and Population at the Harvard School of Public Health. Her research focuses crosscultural mental health measurement and intervention development and assessment. In particular she has been working for the past several years on a project in rural Rwanda- the development and validation of local mental health screening tools for use with children and adolescents, leading to the development of a family strengthening intervention to prevent mental disorders and promote protective processes for children in families affected by HIV/AIDS. In addition to this research, Pamela's doctoral dissertation utilizes latent class analysis and latent transition analysis to explore cross-country differences in depression measurement in the World Mental Health Surveys and the implications for depression prevalence estimates across countries. Pamela is also very interested in incorporating mindfulness techniques for treatment and prevention of depression and other psychosocial disorders. Before coming to Harvard, she earned an MPH from the University of Ghana, where she studied maternal depression in women in rural Ghana. She holds a BA in anthropology from New York University and has studied at Universidad San Francisco de Quito in Ecuador.

SUMMARY PROJECT:

ASSESSING INDIVIDUAL-LEVEL PROTECTIVE FACTORS AND THEIR SENSITIVITY TO A FAMILY-BASED INTERVENTION TO PREVENT MENTAL DISORDERS IN YOUTH IN RWANDA

The findings I will present are situated within a project that aims to develop and evaluate an intervention to prevent mental, emotional, and behavioral disorders in youth in families affected by HIV/AIDS in Rwanda. Because the objective of the intervention is to promote sources of strength to prevent mental disorders, we sought to understand these sources of strength more deeply, and to assess whether these protective factors are uniquely important in Rwanda or whether they represent a more universal set of resilience factors. While there is widespread agreement that some mental disorders, such as depression, are quite similar across cultures, the extent to which protective factors are similar across cultures is not well known. Instead of assuming cross-cultural similarity,



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our research group conducted qualitative research to explore protective factors that were identified as being important locally for youth faced with HIV/AIDS, poverty, and other adversities. I will present the factor analytic structure and measurement of the individual-level protective factors in a sample of 367 Rwandan youth. We find that in Rwanda, protective factors important for resilient psychosocial outcomes at the individual level include: a sense of survival, faith, engagement in social interaction, selfmotivation/self-efficacy, and sense of self-worth or self-esteem. The majority of research conducted on individual-level protective factors in Western settings has centered around factors like self-esteem and self-efficacy. This analysis in a Rwandan context found that these factors were important, however, engagement in social interactions was the just asstrongly related to depression and functional impairment. I will these findings in the context of the family strengthening intervention in Rwanda, and I will discuss implications of these findings for prevention strategies in similar contexts



**KRISTINA ROSALES
KOSTRUKOVA**

POSITION TITLE:
Graduate Student

INSTITUTION AND LOCATION	DEGREE	FIELD OF STUDY
Mailman School of Public Health, Columbia University	MPH	Global Health/ Mental Health/ Infectious Diseases/ Drug Abuse

BIO SKETCH:

As a current graduate student pursuing a Master's in Public Health (MPH) and Latin American Studies (MA) at Columbia University, my specialties range across international health policy and health implications of at-risk groups. Her main interests are particularly situated on issues of drug use, where she has increasingly sought to join and participate in debates detailing health and drug abuse within the public health community, and recently in the mental health field. As a career goal, she seeks to combine her passion and interest for Latin America as well as public health in analyzing the impact of drug use policies on the international health framework. The intention is to contribute in the formation of empirically proven policies representative of the implications associated with drug consumption. At Columbia University, she has been involved with the New York State Psychiatric Institute- Brazil Mental Health group, lead by Drs. Milton Wainberg and Cristiane Duarte. Due to her experience on qualitative and ethnographic research, she is currently participating in the STYLE-B project being developed by NYSPI in Itaboraí, Rio de Janeiro. Upon completing her dual masters degree in May 2013, she will join the U.S. Foreign Service to serve as a diplomat. She plans to work under USAID (United States Agency for International Development) on public health projects across Latin

America and some areas in Africa.

Kristina Rosales holds a Bachelors degree (BA) from the University of Miami in International Studies and Political Science.

SUMMARY PROJECT:

Rio de Janeiro has been engaging in a much-touted security push before the 2014 World Cup and 2016 Olympics, setting up 'peaceful' police stations in once-trafficker controlled favelas. Crack has filtered in the city since 2005, presenting a tough challenge for authorities seeking to control drug trafficking and now increasing drug use. With the establishment of these pacifying police units, the municipal and state entities are seeking to combat this "crack problematic" in areas denominated as "cracolândias" or crack lands with the same public policy approach. On a different front, crack cocaine dependence represents a new challenge in the area of prevention for mental, emotional, and behavioral disorders (MEB). In general, substance abuse prevention has been pointed as an effective control methodology (due in part to the gateway drug theory), yet this has often not been the case in Brazil where a growing focus has been centered on environmental rather than individual pre-emptive efforts. Similar to the U.S. model of approaching crack cocaine abuse, Brazil has often sought to invest all resources on treatment efforts rather than preventive or harm reduction campaigns. Although there are some prevention programs at play, including those implemented by the CAPS-AD and the Clinicas de Saúde da Família, it remains an at-large policy challenge. Through compulsory treatment, as an example, Rio de Janeiro requires underage users to participate in involuntary rehabilitation programs, while adults are referred to Centers for Psychosocial assistance, which also treat mental health disorders. Although Brazil could improve its preventive efforts towards crack use by referring to past policies used to tackle HIV/AIDS within at-risk populations, it has chosen to at times treat users as a public security concern rather than vulnerable subjects to mental, emotional, and behavioral disorders. With a variety of successful prevention efforts available, among these, utilizing resources such as community health workers (CHW's) for precautionary home visitations, Brazil could avidly seek to invest its resources in concrete preventive efforts to deter substance abuse in families and children at an early age (Olds, D. et al., 1997, 1998). Utilizing information acquired during a Fulbright research experience(Fulbright Fellow 2010-2011) examining the spread of crack along specific marginalized communities in Rio de Janeiro, this project presentation will focus on the changing scenes of the crack epidemic in Brazil as a growing but poorly addressed public and mental health concern.

*This project presentation will be developed with the assistance of Dr. Cristiane Duarte, Assistant Professor of Clinical Psychology at Columbia University and New Yorks State Psychiatric Institute.



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MARTA HAUSER

POSITION TITLE:

Assistant professor

INSTITUTION AND LOCATION	DEGREE	FIELD OF STUDY
Zucker Hillside Hospital, North Shore-Long Island Jewish Medical Center	PhD	Clinical Psychology

BIO SKETCH:

Dr. Hauser is a clinical psychologist with appointments as Assistant Professor at Hofstra University- North Shore Long Island Jewish (LIJ) School of Medicine and Assistant Investigator at The Feinstein Institute for Medical Research, North Shore-LIJ Health System. Her research has focused on the early identification and prevention of psychosis- and bipolar-spectrum disorders. Working at the Early Recognition and Prevention Center for Beginning Psychoses of the Charite University Medical Center in Berlin, Germany, she was involved in nationally funded multi-center studies (EPOS: European Prediction of Psychosis Study, and PREVENT: Secondary Prevention of Schizophrenia: a randomized controlled trial) as well as various other related research projects. Dr. Hauser's major areas of research interest have included clinical features (e.g. mood swings, operationalized psychodynamic diagnostics) and biomarkers (sense of agency, auditory event-related P300, loudness dependence of auditory evoked activity) that may enhance early identification by contributing to the predictive validity of prior investigated clinical risk symptoms. Furthermore, she has investigated attitudes towards illness and treatment as well as the effects of psychoeducation in psychosis-risk and first episode patients and their relatives. Currently Dr. Hauser is spearheading a large longitudinal cohort study of 700 adolescents with various mood- and psychotic disorders, followed for 5 years, in New York, USA. The study aims at further expanding our knowledge on predictors of bipolar and psychotic disorders as well as on the course of established mood and psychotic disorders.

SUMMARY PROJECT:

BIOMARKERS FOR THE EARLY DETECTION OF UNIPOLAR DEPRESSION VS. BIPOLAR DISORDER IN YOUTH

Background: Unipolar major depression (MDD) in adolescents can be mistaken for bipolar-I disorder (BP-I), as irritability is a common main clinical criterion for both disorders. Misdiagnosis can have serious adverse consequences, requiring reliable differentiating biomarkers. Biased emotional processing, high sensitivity to goal- and reward-related cues, and cyclothymic-hypersensitive temperament (CHT) are promising candidates that could help differentiate MDD from emerging BP-I during adolescence.

Hypotheses: 1. Compared to youth with BP-I and bipolar disorders not otherwise specified (BP-NOS), MDD youth will show significantly less

- a) positive bias in an emotional processing task
- b) sensitivity to goal- and reward-related cues
- c) CHT traits (trait difference).

2. BP-NOS youth will not differ from BP-I youth in the emotional processing task (trait similarity).

Methods: Subjects: Inclusion criteria: (1) 13-18 years; (2) MDD, BP-NOS and BP-I diagnoses; (3) MDD youth with clearly operationalized current irritability, no lifetime history of mania symptoms, or family history of BP-I; (4) BP-NOS youth with clearly operationalized current irritability; (5) BP-I youth meeting full diagnostic criteria. Exclusion criteria: 1) IQ <70; 2) Pervasive developmental disorders, current substance dependence; psychosis-spectrum disorders; 3) History of medical condition known to affect the brain.

Assessments: Structured assessment of diagnoses and symptoms; neuropsychological assessment of emotional processing; self-reports of sensitivity to goal- and-reward related cues and temperament.

Statistical plan: Comparisons between groups will be analyzed using linear regression with fixed covariates. One exploratory backward likelihood ratio regression including all three biomarkers will be performed.

Design: Cross-sectional comparison of 90 irritable youth with MDD, BP-NOS, and BP-I (n=30 each), on three promising biomarkers.

Outcomes/Goals: Biomarkers, which can differentiate unipolar MDD youth from BP-spectrum youth who present with clinically significant irritability in the absence of full mania symptoms, are urgently needed to enhance clinical decision making and to employ evidence based and guideline consistent treatments in help-seeking youth.



RENATA PELLEGRINO

POSITION TITLE:

Senior Lab technician

Post Doc

INSTITUTION AND LOCATION	DEGREE	FIELD OF STUDY
The Childrens Hospital of Philadelphia CHOP		Genetics

BIO SKETCH:

I have been working on several biomedical research projects, specifically focused on the genetic risks of mental health and sleep disorders. I am dedicated to Sleep deprivation projects involving gene expression, DNA sequencing and cellular and functional studies in Humans and mice. Also, I am responsible for the CGH-arrays projects at CHOP which mainly investigate the rare Copy Number Variation in Autism and ADHD. She connected Upenn to her Federal University in São Paulo (UNIFESP) to develop and research the Genetics Sleep Apnea in different populations (Sleep Apnea Consortium).

Lab skills: Microarrays, Sanger sequencing, qPCR (Taqman SNP, Gene expression and genotyping). Copy Number Variation, CGH-arrays, Transcriptome library



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preparations (Next Generation sequencing), Cell culture and transfection, plasmid construction.

Bioinformatics: microarrays experimental design, Pathways analysis, GO analysis. (Partek, Ingenuity, Dchip, DAVID, R).

Specialties: Microarrays technology, Molecular Biology, Human genetics, Molecular Biology, Bioinformatics. Current: effects of sleep deprivation in Humans and Mice.

SUMMARY PROJECT:

ANALYSIS OF CNV IN AUTISM AND ADHD COHORTS

The purpose of the project is to perform higher-resolution genotyping by aCGH on subjects with autism and ADHD to determine the prevalence of CNVs in genes within the metabotropic glutamate receptor (mGluR) network. Recently, CAG – center for applied genomics has found that genes in this network were enriched for CNVs in patients with ADHD and autism unpublished. The analysis was based on genotyping on Illumina SNP arrays (550–610K), and the CNV analyses revealed that ~10% of individuals with ADHD and ~2–3% of individuals with autism have CNVs within genes in the mGluR network. However, the resolution of the analyses was limited by the spacing of the probes in these SNP arrays (~4–6kb between probes), and potentially important CNVs that were missed due to lack of sensitivity of the arrays. Thus, we designed a custom array for comparative genomic hybridization (CGH) with dense coverage (~300–400bp between probes) within genes in the mGluR network as well other genes implicated in ADHD and other mental disorders. The ADHD and autism cohort within CHOP that was used in the previous analyses will be systematically screened again with the custom CGH array for mGluR network mutations. Importantly, those subjects with these mGluR network mutations could represent a distinct subset that where the etiology of their disorder arises from mGluR dysfunction and would potentially be responsive therapeutically with mGluR modulators.



BRADLEY WAGENAAR

POSITION TITLE:

PhD Student

INSTITUTION AND LOCATION	DEGREE	YEAR(S)	FIELD OF STUDY
St. Olaf College	BA	05/2008	Psychology/ Statistics
Emory University	MPH	05/2012	Global Epidemiology

BIO SKETCH:

Brad Wagenaar is currently a PhD student in the University of Washington's Department of Epidemiology within the School of Public Health. He completed his Master's training in Global Epidemiology at the Rollins School of Public Health in Atlanta, Georgia in May 2012. He is a returned Peace Corps volunteer (08–10) from Cameroon who has provided epidemiologic and biostatistical consulting on projects ranging from alcohol tax research in the United States, to

HIV/AIDS prevention among MSM in the US and Africa, epidemic cholera in the Far North region of Cameroon, time-series analyses of vaccine exemptions in California, and, most recently, work on depression, suicide, and other common mental disorders in the Central Plateau of Haiti. In 2012, Mr. Wagenaar was awarded the Eugene J. Gangarosa Award by Emory University for taking creative approaches to solving public health problems and for showing promise for service in the international arena. He has published 6 peer-reviewed publications to date and has 4 other publications currently under review. Mr. Wagenaar is particularly interested in working on health systems research and implementation science in French-speaking Africa.

SUMMARY PROJECT:

Objective: This study had three aims focused on depression and suicide in Haiti: (1) to epidemiologically quantify depression symptomatology, suicidal ideation, and associated factors; (2) to describe patterns, determinants, and costs of seeking care for psychiatric distress; and (3) to describe causal pathways and attitudes towards suicidal behavior.

Methods: For aims one and two, a cross-sectional, zone-stratified household survey of 408 adults was conducted. Multivariable regression models were built using depression symptomatology, suicidal ideation, or anticipated care seeking as outcomes. For aim three, 24 semi-structured in-depth interviews were conducted and analyzed using interpretive phenomenological analysis.

Results: The mean BDI score was 20.4 (95% CI: 19.3–21.5), and 6.13% (N=25) of participants endorsed current suicidal ideation. Factors associated with BDI scores were: age, female gender, suicidal ideation, death in family, and prior life-threatening illness. Thirty-two percent of respondents endorsed God as their first choice for care if suffering from mental distress, with 28% of respondents endorsing clinics/hospitals. Forty-seven percent of respondents chose providers based on anticipated efficacy. Suicidal individuals were 7.6 times (CI: 1.4, 42.0) as likely to prefer community-based providers over hospitals/clinics. Median service costs were US\$1 for hospitals/clinics, US\$6 for herbal healers, and US\$120 for Vodou priests. Compared to community members, health providers were less likely to consider suicide a “common” and important issue. Many suicide stories illuminated common causes as strained love relationships, public shame, and extreme poverty. Religious engagement appears to be a protective factor and a potential resource/target for future prevention programs.

Conclusion: A large proportion of Haiti's Central Plateau may be experiencing high levels of depression symptomatology and/or current suicidal ideation. Isolated clinical interventions may have limited impact because of less frequent use. Educational programs for health workers on suicide awareness, lay understanding of suicide causation and treatment, and local idioms of distress would be essential.



MAËLENN MARI GUERCHET

POSITION TITLE:

Post-doctoral researcher

INSTITUTION AND LOCATION	DEGREE	FIELD OF STUDY
University of Nantes, France	Baccalaureate	Sciences
University of Bordeaux 2 Victor Segalen, France	Master's degree	Public Health
University of Limoges, France	PhD	Public Health

BIO SKETCH:

Maëlen Guerchet is currently a post-doctoral researcher at the University of Limoges (France), in the Tropical Neuroepidemiology Unit (Inserm U1094). Her PhD researches involved the estimation of prevalence of dementia in three-french speaking African countries, and the study of the associated factors. She obtained her Bachelor's degree in Biological Sciences from Nantes' University in 2005 and her Master's degree in Epidemiology and Biostatistics from the Institute of Epidemiology, Development and Public Health (Bordeaux University) in 2007.

She has participated to several field studies in West and Central Africa. She teaches methodology and practical sides of epidemiological studies to MSc students, and did statistical tutorials for medical students.

To date, she has communicated at several national and international conferences, and authored or co-authored nine publications in peer-reviewed journals

SUMMARY PROJECT:

DEMENTIA IN THREE FRENCH-SPEAKING AFRICAN COUNTRIES: RESULTS AND PERSPECTIVES

Dementia and related syndromes are of major public health concern because of the ageing of global population. If researches on dementia in low-income countries have increased during the last years, few have been carried out in Africa compared to developed countries. During the last years, several door-to-door surveys were carried out in rural and urban areas of three West and Central African French-speaking countries (Benin, Central African Republic (CAR) and Republic of Congo). Participants aged ≥ 65 years old were interviewed. Secondly, a neurologist clinically assessed subjects who had a poor performance at cognitive tests. The DSMIV and NINCDS-ADRDA criteria were required for dementia and Alzheimer's disease diagnoses. Two years later after the initial study, a follow-up was done in Central Africa aiming at retrieving all subjects with dementia or cognitive impairment and controls free-of-dementia.

The prevalence of dementia was low in Djidja, the rural area of Benin (2.6%) and in Cotonou, urban Benin (3.7%), whereas it was higher in Central African cities (8.1% in Bangui and 6.7% in Brazzaville). Age and current depressive symptoms were the two factors most significantly associated with dementia in these populations. Other factors such as female gender, hypertension, a BMI $< 18.5 \text{ kg/m}^2$, and the lack of a primary education were significantly associated with dementia. Death of one parent during childhood and recent moving were also associated with dementia.

Prevalence of dementia seems to vary between different regions of Africa, and between urban and rural areas. Beyond the usual risk factors for dementia, our studies highlight the role of psychosocial risk factors in low-income countries. These results add to the few available figures from developing countries.



BRAZILIAN STUDENTS OF THE Y-MIND ADVANCED SCIENCE SCHOOL



DAVID FREITAS DE LUCENA

POSITION TITLE:

Professor of Pharmacology –
Universidade Federal do Ceara

INSTITUTION AND LOCATION	DEGREE	FIELD OF STUDY
Universidade Federal do Ceara	MD	Medicine
Universidade Federal do Ceara	PhD	Psychiatry/ Pharmacology

BIO SKETCH:

Born on July 21, 1980 in Fortaleza, Ceará. First and second grades held at Military College of Fortaleza (1990-1998). Undergraduate Medicine, Federal University of Ceara (1999-2004). Residency in Psychiatry at the Hospital de Clinicas de Porto Alegre, HCPA. (2005-2008). Analytic Psychotherapy Specialist at Hospital de Clinicas de Porto Alegre (2008-2009). Master of Medical Science from Universidade Federal do Rio Grande do Sul, UFRGS (2007-2009). Doctor of Psychiatry, Federal University of Rio Grande do Sul, UFRGS (2009-2012). Post Doctorate in Physiology & Pharmacology, Federal University of Ceará (2012) is currently Professor of Graduate School of Medicine Christus, Chief Resident Physician, Hospital Mental Health Messejana (HSMM) Outpatient Preceptor First Psychotic Episode - HSMM Developers Lab Psychiatric Molecular HCPA and Researcher of Neuropharmacology Laboratory, Federal University of Ceará.

SUMMARY PROJECT:

Omega-3 has shown efficacy to prevent schizophrenia conversion in ultra-high risk population. We evaluated the efficacy of omega-3 in preventing neonatal neuroinflammation induced by Poly-IC in an animal model of schizophrenia and its effect on brain-derived neurotrophic factor (BDNF). Omega-3 or vehicle was administered in Wistar male rats, both groups at the 30th day of life for 15 days. Each group was split in two to receive along the following 7 days POLY_IC or saline. Locomotor and exploratory activities, memory test and social interaction between pairs were evaluated at the 52nd day of life. Prefrontal-cortex, hippocampus and striatum tissues were extracted right after behavioral tasks for mRNA BDNF expression analysis. Administration of omega-3 in neonatal rats could prevent positive, negative and cognitive symptoms in a inflammatory animal model of schizophrenia. Whether these findings are consequence of BDNF increase it is unclear.



REGIS ERIC MAIA BARROS

POSITION TITLE:

INSTITUTION AND LOCATION	DEGREE	FIELD OF STUDY
Universidade Federal do Ceará (UFC)	MD	Medicine
Hospital das Clínicas da Faculdade de Medicina de Ribeirão Preto – USP	Medical Residency	Psychiatry
Hospital das Clínicas da Faculdade de Medicina de Ribeirão Preto – USP	Medical Residency	Psychotherapy
Hospital das Clínicas da Faculdade de Medicina de Ribeirão Preto – USP		Mental Health System
Hospital das Clínicas da Faculdade de Medicina de Ribeirão Preto – USP	PhD	Mental Health System

BIO SKETCH:

Régis Eric Maia Barros has currently a MD and Ph.D degree at Universidade de São Paulo (USP), Departamento de Neurociências e Ciências do Comportamento. His Master's degree and Ph.D. research involves analysis of mental health networks besides to study psychiatric admissions and readmissions. He obtained his Bachelor's degree in Medicine from UNIFESP in 2002, medical specializations (Psychiatry and Psychotherapy) in 2002 to 2005, Master's degree in Mental Health Networks from USP in 2008 and Ph.D in psychiatric admission and readmissions from USP in 2013. He is an active researcher in his department and contributes to publications on public health. He has also worked in the Coordination of Health Presidency of Brazil as a psychiatric doctor. To date, he has authored of more than 30 publications (articles and literary chronicles).

SUMMARY PROJECT:

Background: Little is known about the impact of length of stay as a predictor of psychiatric readmissions in low- and middle-income countries. Aims: Verify the occurrence of features changes in patients during their first admission and analyzing the factors associated with psychiatric readmissions. Verify the relationship between length of stay and readmission. Method: Socio-demographic and clinical data of all patients admitted in the 2000-2007 period were analyzed using survival curves and logistic regression. Results: During the study period, 6,261 individuals were admitted for the first time showing increases in the proportion of patients with some socio-demographic (professionally inactive, elderly and young adults) and clinical (brief hospitalizations, diagnoses of depressive or personality disorders) characteristics. The psychiatric readmissions were related to age, longer admissions, affective and psychotic



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disorders. Conclusions: Psychiatric readmissions using as references the first admissions have as risk factors: young age, longer length of stay and diagnosis of severe mental disorder.



**TATIANA VALVERDE DA
CONCEIÇÃO**

POSITION TITLE:

Child and Adolescent Psychiatrist

INSTITUTION AND LOCATION	DEGREE	FIELD OF STUDY
Universidade Federal do Rio Grande do Sul	MD	Medicine
Hospital de Clínicas de Porto Alegre	Medical Residency	Psychiatry
Hospital de Clínicas de Porto Alegre	Medical Residency	Child/ Adolescent Psychiatry
Universidade Federal do Rio Grande do Sul	PhD student	Psychiatry

BIO SKETCH:

The proposed research aims at evaluating a psychosocial intervention with depressed mothers in relation to their child's behavioral problems in a Brazilian sample. As a child and adolescent psychiatrist with a particular interest in early interventions and prevention of mental health problems, I have the motivation, enthusiasm and expertise to conduct this project as a principal investigator. I graduated in medicine in 2005 in an internationally recognized medical school in Brazil (Universidade Federal do Rio Grande do Sul) and completed my residency training in psychiatry in 2008 and in child and adolescent psychiatry in 2009 in the same institution. In 2010 I completed a substance addiction specialization course in the Universidade Federal de São Paulo. After finishing my residency training I idealized and implemented for the first time the child psychiatry outpatient clinic in the tertiary hospital I work in and started teaching in both the Psychiatry Residency Program and the Medical School of Universidade de Brasília. Currently I am member of the scientific board of the Associação Brasileira de Neurologia, Psiquiatria Infantil e Profissões Afins (Brazilian Association of Neurology, Child Psychiatry and Allied Professions)– Distrito Federal. I have a strong interest in Research and Academic Career. In the last years my involvement with research resulted in 3 published articles, 9 book chapters and several abstracts and posters in conferences. I was member of the technical review board of the translation into portuguese of the Encyclopedia on Early Child Development (Canada). I am currently a reviewer for Revista Brasileira de Psicoterapia and Trends in Psychiatry and Psychotherapy. The participation in the São Paulo School of Advanced Science for Prevention of Mental Disorders will be an important step in the process of conception and implementation of a preventive program in the field of child mental health in Brasília-DF.

SUMMARY PROJECT:

A PREVENTION PROGRAM FOR MENTAL HEALTH PROBLEMS IN CHILDREN OF DEPRESSED MOTHERS IN A BRAZILIAN SAMPLE- A PILOT STUDY

Child and adolescent mental health (CAMH) problems are highly prevalent (10–20%) around the globe. There is an urgent need for preventive studies and interventions for mental health problems in Brazil. Several factors are associated with poor developmental and mental health outcomes in childhood including maternal depression. Perinatal depression negatively affects the mother's capacity to interact with her child. Interventions targeted at improving mother-infant interactions among depressed mothers may be of potential benefit in preventing behavioral problems in childhood. The pilot study design is a longitudinal controlled trial involving a primary care unit (Family Health Program) in Brasília, with pregnant women attending antenatal health care. Women will be screened for depressive symptoms. Those assessed as having depressive symptoms will be invited to the referral to the psychoeducational intervention in addition of standard maternity care. The intervention group will be compared to the standard care group. The intervention will consist of 4 weekly prenatal psychoeducational group sessions and 4 weekly postnatal group sessions delivered by mental health providers. In order to standardize the intervention, all professionals involved with delivery of psychoeducational sessions will receive specific and uniform training. The topics covered in the sessions will include coping with depressive symptoms as well as parenting skills, with emphasis on infant's competencies and mother-infant interaction. The sessions' format will take into consideration previous evidence on number of sessions as well as topics supported by the literature (National Postnatal Depression Program, 2005; Scott, 2010; Wendlandcarro et al., 1999). The intervention is expected to prevent behavioral problems in children of depressed mothers, as well as reduce maternal depressive symptoms and improve mother-infant interaction. As the pilot study succeeds, we intend to expand it to other primary care units in Brasília and possibly to other cities in Brazil.



FLÁVIA GARCIA PEREIRA

POSITION TITLE:

Physiotherapist

INSTITUTION AND LOCATION	DEGREE	FIELD OF STUDY
Universidade Vila Velha, Uvv	Bachelor	Physiotherapy
Federal University Of Espirito Santo, Ufes	Masters	Epidemiology Psychiatric

BIO SKETCH:

Physiotherapist, graduated at Universidade Vila Velha – UVV in 2005, has postgraduate in hospital physiotherapy at Escola Superior de Ciências da Santa Casa de Misericórdia de Vitória – EMESCAM in 2007. The main professional



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activity is in public service, the last one was in Centro de Reabilitação Física do Estado do Espírito Santo — CREFES, between 2010 and 2012. Currently has scholarship from Coordenação de Aperfeiçoamento de Pessoal de Nível Superior — CAPES to conduct master's degree in collective health, area psychiatric epidemiology in Universidade Federal do Espírito Santo — UFES. The study focuses on the association between chronic pain, depression and childhood adversity.

SUMMARY PROJECT:

THE ROLE OF CHILDHOOD ADVERSITY THE ASSOCIATION OF IN CHRONIC PAIN AND DEPRESSION: RESULTS FROM THE SÃO PAULO MEGACITY MENTAL HEALTH SURVEY

Chronic pain and depression are clinical conditions that have, each one of them, high prevalence rates in the general population and are associated with numerous etiological determinants. Chronic pain may be present in adulthood affecting daily activities of individuals and, may not be related to organic causes, but to psychological stressors or psychiatric disorders. On the other hand, depression may express as pain syndromes. Thus, chronic pain and depression may be mutually reinforcing: pain can contribute to the onset of depression through a trajectory of losses and impairments; and depression can be expressed as various types of clinical pain. Moreover, several clinical conditions and risky behaviors in adulthood are associated with traumatic childhood experiences, such as loss of emotional bonds, maltreatment, neglect, physical and sexual abuse. The memory and impact of these adverse events in childhood, as well as neuroendocrine alterations, can increase the vulnerability to mental disorders and chronic diseases in adulthood. The aims of this study are to evaluate the effect of depression and childhood adversity in the occurrence of chronic pain and the effect of chronic pain and childhood adversity in determining later onset of depression in a sample of the general adult population resident in the São Paulo Metropolitan Area. The present study will analyze the data related to chronic pain, depression and adversity in childhood collected in São Paulo Megacity Mental Health Survey. The São Paulo Megacity Mental Health Survey is a population-based cross-sectional survey of psychiatric morbidity, assessing a probabilistic sample of household residents in the São Paulo Metropolitan Area, aged 18 years and over. Respondents were selected from a stratified multistage clustered area probability sample of households, covering all 39 municipalities, without replacement. A total of 5,037 individuals were interviewed, with a global response rate of 81.3%.



**MARIANE HENRIQUES
FRANÇA**

POSITION TITLE:

Social Service
Health Service, Petroleo Brasileiro S.A.

INSTITUTION AND LOCATION	DEGREE	FIELD OF STUDY
Federal University of Espírito Santo, Brazil	Bachelor	Social Service
Estácio de Sá College, Espírito Santo, Brasil	Specialist	Public Health
Federal University of Espírito Santo, Brazil	Masters (ongoing)	Public Health / Psychiatric Epidemiology

BIO SKETCH:

Mariane França graduated in Social Service from Federal University of Espírito Santo (UFES) in 2005. She took Multi professional Residency at Nossa Senhora da Glória Children's Hospital (2004-2005) and also took Latu Sensu Post-graduation course in Public Health focused on Family Health Program (2005-2006). In 2006 she worked for the Counseling and Testing Center and STD/AIDS Specialized Service in Guarapari/ES. She participated in the creation and implementation of the Technical Forum of Espírito Santo STD/AIDS. In 2007 Mariane also worked for Espírito Santos's Agriculture and Forestry Protection Institute working in the Human Resources and Life and Health Quality areas. Since 2007 she has been working as Social Worker for Petrobras in Project Management and programs concerning to Occupational Health: Social Attendances, Assistance to Crisis and Post Crises Program, Chemical Dependency Program, employees absenteeism follow-up, among other activities. She has participated in the University Extension Projects at UFSC and UNIFESP related to alcohol, tobacco and other drugs use, abuse and dependence (2008-2010). Also she took Work Psychodynamic and Psychopathology and Employee's Health courses. Today she has been taking masters in Public Health at UFES in the area of Psychiatric Epidemiology. Her study assesses the indirect costs of mental disorders in the workforce on individual and societal levels. This study is part of São Paulo Megacity Mental Health Survey, the World Health Organization and Harvard University initiative.

SUMMARY PROJECT:

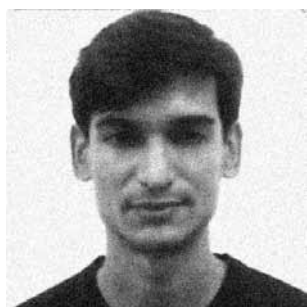
THE INDIRECT COSTS OF MENTAL DISORDERS: INDIVIDUAL AND SOCIETAL BURDEN IN THE WORKFORCE

The indirect costs of mental disorders in the workforce impose major individual and societal burdens. Although most studies identified strong correlations between occurrence of mental disorders with absenteeism and presenteeism, their impact on individual productivity has not been fully explored. In Brazil, systematic information representing the impact of mental disorders in individual and social costs in population-based samples has not been reported. The objective of this study is to estimate the indirect costs of mental disorders in



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the workforce both on individual and on societal levels. At the individual level, data from the São Paulo Megacity Mental Health Survey, a population-based cross-sectional study of psychiatric morbidity in the São Paulo Metropolitan Area will be analyzed. On the societal level, secondary data from the National Social Security Institute (INSS) will be analyzed, assessing the global financial burden resulting from mental disorders in Brazilian employees. Logistic regression multivariate models are used to analysis the associations between mental disorders with total and partial disability, presenteeism, absenteeism, work performance, productivity, efficiency and income, controlling for socio-demographic variables (age, sex, education and marital status). Results on the individual level will be projected to obtain population level estimated costs in Brazil, identifying the overall financial burden of mental disorders to society. Preliminary results of the data on societal level from 2008 to 2011 indicate a gradual increase of the number of sickness benefit concessions due to mental disorders. An increase on the number of contributors making use of the benefits also happened. The financial costs of mental disorders keep on growing, representing a considerable share of the gross domestic product (GDP) and of the INSS. The mood disorders stand for the major burden, followed by anxiety disorders and alcohol and other drugs. These results will help to contribute to evidence a tangible portion of the cost associated with mental disorders, emphasizing the need to integrate the various indicators of individual and social cost for better understanding of the impact of these disorders on society.



**DOUGLAS DE ARAÚJO
VILHENA**

POSITION TITLE:
Master Student

has Graduated in Technical Chemistry (2005) in Centro Federal de Educação Tecnológica de Minas Gerais (CEFET-MG-Brazil). Had work experience in United States. Works mainly with the following topics: Dyslexia, Cognitive Assessment, Neuroscience and Forensic Psychology.

SUMMARY PROJECT:

Approximately 10% of the population presents poor Reading and Writing abilities, memory and organization, facing difficulties in the written language. The minority of these cases of reading failure can be attributed to a cognitive impairment, which can have a general or specific cause. The first one results from a poor general ability and the second from a specific condition called Developmental Dyslexia. This reading disorder in most cases has a phonological deficit as the main cause underlying the observed slow and inaccurate word recognition (Decoding). Although this deficit seems to persist throughout the person's whole life, it can be minimized with the appropriate teaching, which involves training in phoneme awareness, letter knowledge, explicit and systematic instruction in phonics. The earlier this intervention takes place, the easier it is to improve the reading functions and also to alter the low self-esteem and behavioral problems often found in those with reading difficulties. In Brazil, there is a lack of reliable and valid instruments to assess properly the reading processes, especially the ones that measure the Reading comprehension, Phonological Awareness and the ones to be used by the teacher. For this matter, we are building four instruments to assess the Reading abilities of young children. One of them is EACOL, which was developed to guide the teacher's judgment of the reading abilities of school children. The Second is an adaptation and validation to the Brazilian Portuguese of the instrument TIL (Test of Reading Age), which evaluates the Phonological Decoding and the Reading Comprehension. The other two tests are tasks that analyse the Visual/Lexical Route and the Phonological Route. By these means, we expect to approach children with Reading Disorder, being able to make an early intervention to minimize the harm caused by the negligence.

INSTITUTION AND LOCATION	DEGREE	FIELD OF STUDY
Centro Federal de Educação Tecnológica de Minas Gerais Belo Horizonte, Brazil	Technician	Chemistry
Universidade Federal de Minas Gerais Belo Horizonte, Brazil	Baccalaureate	Psychology
Universidade Federal de Minas Gerais Belo Horizonte, Brazil	Master Student	Psychology/ Human Development/ Cognition and Language

BIO SKETCH:

Master Student in the Post-Graduation Program of Psychology in the Universidade Federal de Minas Gerais (UFMG/Brazil) in the "Human Development" area, with "Cognition and Language" line of work. Has bachelor degree in Psychology (2011) from Universidade Federal de Minas Gerais with a part-time period at the University of Leeds (United Kingdom). Also



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**IZABELA GUIMARÃES
BARBOSA**

POSITION TITLE:

Postdoc of Neuroscience Program
(Universidade Federal de Minas Gerais)

INSTITUTION AND LOCATION	DEGREE	FIELD OF STUDY
Universidade Federal de Minas Gerais	MD	Medicine
Instituto de Previdência dos Servidores do Estado de Minas Gerais (IPSEMG)	Residence	Psychiatry
Universidade Federal de Minas Gerais	MSc	Neuroscience
Universidade Federal de Minas Gerais	PhD	Neuroscience

BIO SKETCH:

I am psychiatry interesting in immunology and neurotrophins biomarkers related to neuropsychiatric disorders, specially in mood disorder. My research career started in 2006 at IPSEMG (Instituto de Previdência dos Servidores do Estado de Minas Gerais) Brazil. I am interesting in research the role of proinflammatory cytokines in the biological effects of stress, mood alterations and in the pathogenesis of neuropsychiatric disorders and in the molecular mechanism of drugs (antipsychotics and mood stabilizers).

Selected Peer-reviewed Publications (Selected from 15 peer-reviewed publications)

Barbosa IG, Rocha NP, Huguet RB, Ferreira RA, Salgado JV, Carvalho LA, Pariente CM, Teixeira AL. Executive dysfunction in euthymic bipolar disorder patients and its association with plasma biomarkers. *J Affect Disord.* 2012 Mar; 137(1-3):151-5.

Barbosa IG, Rocha NP, Miranda AS, Magalhães PV, Huguet RB, Souza LP, Kapczinski F, Teixeira AL. Increased levels of adipokines in bipolar disorder. *J Psychiatr Res.* 2012 Mar; 46(3):389-93.

Barbosa IG, Huguet RB, Neves FS, Reis HJ, Bauer ME, Janka Z, Palotás A, Teixeira AL. Impaired nerve growth factor homeostasis in patients with bipolar disorder. *World J Biol Psychiatry.* 2011 Apr;12(3):228-32.

Barbosa IG, Huguet RB, Amaral VA, Souza LP, Neves FS, Bauer ME, Teixeira AL. Increased plasma levels of soluble TNF receptor I in patients with bipolar disorder. *Eur Arch Psychiatry Clin Neurosci.* 2011 Mar;261(2):139-43.

Teixeira AL, Barbosa IG, Diniz BS, Kummer A. Circulating levels of brain-derived neurotrophic factor: correlation with mood, cognition and motor function. *Biomarkers in Medicine.* 2010; 4: 871 - 87.

SUMMARY PROJECT:

Background and relevance for the field: Bipolar disorder (BD) is a psychiatric prevalent syndrome, characterized by chronic course and high morbidity. Evidence in the literature suggests that disturbance at immunologic mechanism

play an important role in the pathophysiology of BD. It has been suggested that the immunologic and pro-inflammatory parameters stimulated the same second-messenger pathways than the mood stabilizers drugs. Main Objectives: Therefore, this project aims to investigate aspects inflammatory and immune mechanisms of second-messengers in BD. Methodology: A cross-sectional observational study will be conducted including BD patients from the sector psychiatry at the Instituto de Previdência dos Servidores do Estado de Minas Gerais (IPSEMG) and controls. BD patients will be evaluated to characterized clinical and psychiatric aspects of illness. Peripheral blood and hair will be collected of subjects in order to evaluate immunologic and pro-inflammatory parameters. The blood will be processed for evaluation of immunologic and pro-inflammatory parameters in the plasma, peripheral blood mononuclear cells (PBMC) and collection tubes the PAXgene for genetic analysis. In plasma will be analyzed cytokines, chemokines, adipokines and neurotrophic factors by enzyme immunoassay (ELISA). Frozen PBMC are subjected to analysis by flow cytometry to evaluate of cell subpopulations and second-messengers parameters. PBMCs will be stimulated with specific stimuli, antiCD3/CD28, lipopolysaccharides (LPS), and mood stabilizers drugs. The inflammatory gene expression analysis will be performed following the PAXgene techniques. In hair samples of patients analysis will be performed cortisol levels in patients. Comparisons will be made between control subjects and BD patients according clinical and psychiatric parameters and the laboratory parameters. Expected results: We expect to find contribute to clarify the pathophysiology mechanism in BD illness.



**MÁRIO CÉSAR REZENDE
ANDRADE**

POSITION TITLE:

Ph.D. Student in Psychiatry and Psychological Medicine at Universidade Federal de São Paulo (UNIFESP)

INSTITUTION AND LOCATION	DEGREE	FIELD OF STUDY
Universidade Federal de São João del-Rei (UFSJ)	B.Sc.	Psychology
Universidade Federal de São João del-Rei (UFSJ)	M.Sc.	Psychology (Mental Health)

BIO SKETCH:

Mário César Rezende Andrade is from Brazil, where he is a Ph.D. student in Psychiatry and Psychological Medicine at Universidade Federal de São Paulo (UNIFESP). He is also a clinical psychologist in private practice, working with cognitive-behavioral therapy. His academic background includes participation in research activities into the mental health field since his undergraduate course in Psychology, with the following subjects: patient-reported outcome measures in mental health services and treatments, abnormal psychology, validation and adaptation of measures in mental health, addiction and psychosocial interventions in mental health. He has also two postgraduate courses: one of



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them in University Teaching, at Gama Filho University (UGF), and the other in Cognitive-Behavioural Therapy in Mental Health, at the Institute of Psychiatry, University of São Paulo (USP). In his M.Sc. research project, he investigated the relationship between symptomatic changes and perceived improvement among patients with severe and persistent mental disorders treated in Brazilian mental health community services. During the M.Sc., he was also a graduate research trainee at a McGill University's mental health affiliated hospital in Montreal (Canada), the Douglas Mental Health University Institute. In his Ph.D. study, he aims to assess the association between the needs of care in patients with schizophrenic disorders and variables of severity, disease history and use of community mental health services.

SUMMARY PROJECT:

STUDY OF NEEDS IN PATIENTS WITH SCHIZOPHRENIA SPECTRUM DISORDERS TREATED IN COMMUNITY MENTAL HEALTH SERVICES: THE INFLUENCE OF HISTORY AND SEVERITY OF ILLNESS AND SERVICE UTILIZATION

Introduction: The needs for care among psychiatric patients with severe disorders have been used in planning and monitoring of mental health services. However, the influence of the service utilization, clinical history and severity of the illness on patients' needs has not been studied. The study of the influence of such variables would permit the development of new strategies of prevention and treatment in mental health services. **Objective:** To assess the association between needs of care in patients with schizophrenic disorders and variables of symptom severity, clinical history of illness and utilization of community mental health services. **Methodology:** This study consists of the analysis of 401 interviews from a cross-sectional survey with a random sample of patients with schizophrenic disorders treated in the Psychosocial Care Centers in the city of Santos throughout the year of 2005. The needs assessment was made by the Camberwell Assessment of Needs (CAN), the severity of symptoms by the Positive and Negative Symptoms Scale (PANSS) and the clinical history of patient's illness by the Chart Life Rating Form (CLRF). A questionnaire with information about service utilization was used to collect such data. The associations will be analyzed using two models of multiple regression analysis, with the number of total needs and unmet needs as dependent variables. **Expected Results:** It is expected an inverse association of the variables of service utilization with the number of unmet needs and the total number of needs, controlling the variables of history and severity of illness.



ALICE LOPES DO AMARAL MENEZES

POSITION TITLE:

Researcher at Laboratory of Interdisciplinary Research in Primary Health Care, at Rio de Janeiro State University (LIPAPS/UERJ)

INSTITUTION AND LOCATION	DEGREE	FIELD OF STUDY
Rio de Janeiro State University, Institute of Social Medicine (UERJ-IMS)	Master in Public Health	Human and health sciences/ Public health politics/ Mental health/ Psychiatric categories/ Neurosciences/ Doctor-patient relationship/ Impact of psychiatric conceptual and technical developments in social relations

BIO SKETCH:

Master in Public Health at Institute of Social Medicine (2012), postgraduated (lato sensu) in Medical Psychology (2009) and Hospital Psychology (2006), graduated in Social Communications (1992) and Psychology (2003). During master's course studied psychosocial interventions for mental health in primary care and subsequently joined the Laboratory of Interdisciplinary Research in Primary Health Care from Rio de Janeiro State University (LIPAPS/UERJ) as a researcher. From 2008 to 2010, took part in joint initiatives between UERJ and Rio de Janeiro's Municipal Health Secretariat (SMS) for establishing integration of Mental Health into Primary Care (called "Estratégia de Saúde da Família" in Brazil). Also worked as teacher and supervisor in the training course offered for both mental health and primary care teams. Since 2009, has ministered disciplines at different UERJ courses: Medical Sciences graduation (medical psychology), Medical Psychology postgraduation (brief psychotherapy, body psychotherapy, psychology and neurosciences, psychosocial interventions for primary care) and Nursing post-graduation (mental health for primary care). In 2012, was hired to teach Public Health Politics at the Brazilian largest technical educational initiative (PROFORMAR). This program is developed by Joaquim Venâncio Polytechnical Health School (from FIOCRUZ) as per the Ministry of Health request and it aims to qualify 30.000 vigilance health agents for future integration into primary care. Interested in the following research areas: human and health sciences, public health; mental health, primary care; training in mental health; health promotion, psychology; psychosocial interventions; doctor-patient relationship; somatization; cultural, social and subjective implications of new psychiatric and biomedical technology development. Besides researching and teaching, handles a small private psychology practice. At last, before working in the health sector, has developed an executive career working at multinational companies with Marketing, Communications, Planning, Sales and Training.



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SUMMARY PROJECT:

PSYCHOSOCIAL INTERVENTIONS FOR COMMON MENTAL DISORDERS IN PRIMARY HEALTH CARE

Alice Menezes, Rio de Janeiro State University, Institute of Social Medicine (UERJ-IMS)

Master's dissertation, funding CNPQ

BACKGROUND: Common mental disorders (CMD), especially anxiety and depression, are highly prevalent. In Primary Health Care (PHC), represented in Brazil by Family Health Strategy (Estratégia de Saúde da Família), these conditions are not well detected or treated. This results in burden for patients, their families and communities, as well as social and economic losses. Integrating mental health care into primary care can diminish this situation. **OBJECTIVE:** Identify and analyze psychosocial interventions for mental suffering and CMD currently adopted in Brazilian and international PHC. **METHOD:** Brazilian and international literature review through LILACS and MEDLINE bibliographic databases. Articles were classified according to its pertinence and only high pertinent ones were selected. **RESULTS:** Identified interventions were gathered as follows: in the first group were allocated those with traditional arrangements where a qualified professional performs the treatment face-to-face. In the second, were included those with different arrangements where contact with the professional is reduced and his role is more of a facilitator than that of a leader (example: interventions conducted by lay people, self-help, electronic platforms offering treatment packages via internet). Internationally, interventions were brief and structured, including a manual. Theoretically, Interpersonal Therapy, Cognitive-behavioral Therapy and Problem Solving Therapy anchored most interventions. In Brazil, group interventions and Community Therapy (a locally developed model) stood out. **CONCLUSIONS:** CMD gain more visibility as PHC gains more ground and establishes itself closer to the population. In foreign countries, the integration of mental healthcare in PHC is in consolidation and structured psychosocial interventions are used, while in Brazil the tie between PHC and Family Health Strategy is recent and there are no standard procedures defined. The prevalence of CMD and the potential for care in PHC demand that research continues.



DAIANNA LIMA THIENGO

POSITION TITLE:

PhD Student

INSTITUTION AND LOCATION	DEGREE	FIELD OF STUDY
Center for Health Sciences, Federal University of Rio de Janeiro, Brazil	Graduation	Phonodaudiology
Institute for Studies in Public Health, Federal University of Rio de Janeiro, Brazil	Master	Public Health (MA)
Institute for Studies in Public Health, Federal University of Rio de Janeiro, Brazil	PhD Student	Public Health

BIO SKETCH:

Daianna Lima Thiengo is currently a doctoral student at the Institute of Public Health Research at the Federal University of Rio de Janeiro. Currently his doctoral research aims to assess the stigma of mental illness in Brazil, aiming to implement a more appropriate service. Furthermore, this project is part of a larger project aiming to improve the development of research and training in the area of Mental Health in Latin America. She has obtained a bachelor's degree in speech pathology at UFRJ in 2009 and master's in public health at UFRJ in 2011. Currently she is the author of three publications and co-authored a chapter in the book.

SUMMARY PROJECT:

ASSESSING CULTURE SPECIFIC MENTAL ILLNESS STIGMA IN BRAZIL: ENHANCING SERVICE IMPLEMENTATION

The research component is designed to address a key gap in the services offered by mental health clinics. These clinics are the primary location for outpatient treatment of patients with severe mental disorders in urban areas of Latin America, and they offer some important and basic care, such as clinical pharmacology. Generally these clinics also have a great limitation because they have minimal or no resources and training to provide community-based services, ie services provided off-site clinic in homes or elsewhere in the community. In most urban areas, also have weak linkages to primary health care and are not easily accessible to most of the population. It is important to generate sustained progress for health care in the community for people with severe mental disorders. This care takes into account the need to deal with discrimination, unemployment, extreme poverty, reduced access to health services and vulnerability to violence and abuse. A key component of this program is the ability to provide community-based services for people



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with severe mental illnesses in their homes and elsewhere within their communities. Therefore, this project aims to develop Research and Training in the area of Mental Health in Latin America. Therefore, over a period of five years, researchers from three sites (UFRJ = Federal University of Brazil at Rio de Janeiro. UCH = University of Chile at Santiago. CUGMP = Columbia University Global Mental Health Program) worked together to design the pilot an intervention that will introduce community-based services and will be viable for widespread use in North and South America. The userlevel service provides support for a better life community and promotes social integration, and system level strengthens the connections between mental health and primary care clinics. The model of care will be provided for 9 months, from the moment of critical psychiatric patient in a mental health clinic. During this period, workers establish relationships that shape the continued use of the services and increase the potential for recovery over time thereafter. Mental Health Workers and peer support workers on the basis of mental health clinics and supervised by mental health professionals, sensitize the community and provided support to engage users, family members, primary care physicians, colleagues and other community members in recovery process.



JULIANA DOS SANTOS VAZ

POSITION TITLE:

Postdoc fellow in Nutritional Epidemiology

INSTITUTION AND LOCATION	DEGREE	FIELD OF STUDY
Federal University of Rio De Janeiro		Nutritional Epidemiology
National Institutes of Health		Nutritional Neuroscience
University of Bristol		Nutritional Epidemiology

BIO SKETCH:

I am a research Dietitian, Master in Endocrinology, PhD in Nutritional Science, and current a Postdoc Fellow in Nutritional Epidemiology at the Federal University of Rio de Janeiro. My research background includes experience in clinical trials and cohort studies in the field of dietary interventions, fatty acids metabolism, type 2 diabetes and mental health. During my doctoral training, I joined a research group in Nutritional Epidemiology at the University of Rio de Janeiro. In this group, we developed a cohort study to investigate nutritional aspects associated with common mental disorders in pregnancy and the postpartum. This study also presented a parallel group of high risk women who received fish oil capsules to test the possible effect of omega-3 on the prevention of postpartum depression. In my third year of PhD, I did 9 months of research training at the Laboratory of Nutritional Neuroscience at NIAAA – NIH. Later, I did 2 months research visit at the University of Bristol – UK, to investigate aspects of fish consumption and dietary patterns associated with

higher anxiety in pregnancy, using the dataset of a British cohort study (Avon Longitudinal Study of Parents and Children – ALSPAC).

SUMMARY PROJECT:

DIETARY PATTERNS, N-3 FATTY ACIDS INTAKE FROM SEAFOOD AND HIGH LEVELS OF ANXIETY SYMPTOMS DURING PREGNANCY: FINDINGS FROM THE AVON LONGITUDINAL STUDY OF PARENTS AND CHILDREN

Background: Little is known about relationships between dietary patterns, n-3 polyunsaturated fatty acids (PUFA) intake and excessive anxiety during pregnancy.

Objective: To examine whether dietary patterns and n-3 PUFA intake from seafood are associated with high levels of anxiety during pregnancy.

Design: Pregnant women enrolled from 1991-1992 in ALSPAC (n = 9,530). Dietary patterns were established from food frequency questionnaire using principal component analysis. Total intake of n-3 PUFA (grams/week) from seafood was also examined. Symptoms of anxiety were measured at 32 weeks of gestation with the Crown-Crisp Experiential Index; scores ≥ 9 corresponded to the 85th percentile was defined as high anxiety symptoms. Multivariate logistic regression models were used to estimate the OR and 95% CI, adjusted by socioeconomic and lifestyle variables.

Results: Multivariate results showed that women in the highest tertile of the health-conscious (OR 0.77; 0.65-0.93) and the traditional (OR 0.84; 0.73-0.97) pattern scores were less likely to report high anxiety symptoms. Women in the highest tertile of the vegetarian pattern score (OR 1.25; 1.08-1.44) were more likely to have high anxiety symptoms, as well as those with no n-3 PUFA intake from seafood (OR 1.53; 1.25-1.87) when compared with those with intake of >1.5 grams/week.

Conclusions: Women among the highest tertile of the health-conscious and the traditional dietary patterns were less likely to report high anxiety symptoms, while those with high scores on a vegetarian pattern or with intakes of n-3 PUFA from seafood <1.5 grams/week were more likely to report high anxiety symptoms in pregnancy.



KAREN SANTO ATHIE

POSITION TITLE:

PhD Student

INSTITUTION AND LOCATION	DEGREE	FIELD OF STUDY
the University of the State of Rio de Janeiro – UERJ	Medical Psychology	Medical Psychology
University of Paris	Master	Women's Studies

BIO SKETCH:

I graduated in Psychology in 1999. I did a Master in Women's Studies in the



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subject area of the Humanities and Social Sciences at the University of Paris 8. I did a Diploma in Medical Psychology at the University of the State of Rio de Janeiro - UERJ and Psycho-oncology in National Cancer Institute (Instituto Nacional do Câncer- INCa). I started to join the team of supervisors and preceptors Teaching Care Unit of Mental Health and Medical Psychology -UERJ in 2006. Act as coach of courses offered to teams of Strategy Family Health along with mental health teams in Rio de Janeiro in 2010 and 2011. I acted as a teacher in courses for management in psychosocial care in Primary Care Health. The students was doctors, dentists, nurses, psychologists, psychiatrists and health community agents. Since early 2012, I joined the team of Community of Practice in Primary care Health, portal funded by the Brazilian Ministry of Health. (www.atencaobasica.org.br), and today I continue working as PAHO (Pan American health organization) consulting. Currently working on research related to Primary Care (PC). For this reason, I went from the beginning of development and implementation teams work in collaboration between mental health and the PC of Rio de Janeiro, which is known in Brazil as "support matrix". These investigations are in Interdisciplinary Research Laboratory in Primary Care Health – UERJ and it is my doctorate study theme. I work also on the organization of Mental Health Services at the Polyclinic Piquet Carneiro / UERJ. My functions are organize the network, planning the health services and human resources. In addition, I act in telehealth program for mental health network and organize conferences of mental health and primary care

SUMMARY PROJECT:

In Brazil "matrix support" teams are the chosen model for integration of mental health in primary care in the National Health System(SUS). Their implementation and management are a challenge, with several difficulties being found. The objectives are to map and study the integrated actions of MH in PC in the city of Rio de Janeiro from the perspective of the service managers. Our Hypothesis are that Matrix Support work in favor of integration of MH in PC. The design is a cross sectional study of qualitative and quantitative character. The Methodology is a semi-structured interview realized with 18 managers (100%) of the units in the sanitary district of Rio de Janeiro (Area Programática 2.2) . From 18 managers, 12 from PC (Family Health Strategy-FHS = 8 and General Ambulatory Services= 4) and 6 from MH (Psychosocial CentersCAPS=2 and Specialized Ambulatory Services = 4). The instrument maps the structural and relational dimensions of services (physical infrastructure, human resources, access, gateway, intervention, service integration, family focus, integration with the community, continuing education), with closed questions in a Likert scale and one open question on the advantages and disadvantages of integration of these actions. We have found that the structural features were well known but technical matters relating to therapeutic interventions performed were unknown. It was consensus that the PC matrix support model enabled advances in mental health care. On the other hand, there are several difficulties with human resources management due different types of work contracts, and also a lack of knowledge on available therapeutic techniques. Matrix support work has helped the advance of integrated care. In general, managers in Primary Care did not recognize their group activities as an effective MH intervention, although these interventions are frequently used in MH clinical tools and networks.



MARIANA PIRES DA LUZ

POSITION TITLE:

M.D., MSc

INSTITUTION AND LOCATION	DEGREE	FIELD OF STUDY
Universidade Federal do Rio de Janeiro – UFRJ Rio de Janeiro, Brazil	M.D.	Medical School
Universidade Federal do Rio de Janeiro – UFRJ Rio de Janeiro, Brazil	Psychiatrist	Medical Residency/ Psychiatry
Universidade Federal do Rio de Janeiro – UFRJ Rio de Janeiro, Brazil		Medical Residency/ Geriatric Psychiatry
Universidade Federal do Rio de Janeiro – UFRJ Rio de Janeiro, Brazil	MSc	Psychiatry and Mental Health
Universidade Federal do Rio de Janeiro – UFRJ Rio de Janeiro, Brazil	PhD candidate	Psychiatry and Mental Health

BIO SKETCH:

Graduated as a Medical Doctor in 2004, from the Universidade Federal do Rio de Janeiro (UFRJ), and enrolled in Medical Residency in the same University from 2005 through 2008, specializing in adult and geriatric Psychiatry. Since 2008, has been a student at the Post-Graduation Program of Psychiatry and Mental Health at UFRJ. In 2010 obtained the MSc degree with the project title "Bibliometric tools applied to Psychiatry". Since 2010 has been developing the PhD project entitled "Conditional Risk for posttraumatic stress disorder (PTSD): systematic review, metaanalysis and epidemiological study". Currently working as a psychiatrist and residency preceptor at the Institute of Psychiatry at Universidade Federal do Rio de Janeiro and is an active researcher from the Laboratório Integrado de Pesquisa sobre o Estresse (LINPES) at UFRJ.

SUMMARY PROJECT:

CONDITIONAL RISK FOR POSTTRAUMATIC STRESS DISORDER (PTSD): SYSTEMATIC REVIEW, METAANALYSIS AND EPIDEMIOLOGICAL STUDY.

Background: PTSD is a prevalent and disabling psychiatric disorder that can occur after experiencing a traumatic event (TE). The risk of developing PTSD after being exposed to a TE, i.e., the conditional risk for PTSD, is influenced by a number of aspects, such as the type of TE. Objectives: The objectives of our study are: 1) to summarize data on trauma exposure and conditional risk of PTSD in the general population through a systematic review; 2) to analyze the conditional risk for PTSD secondary to each type of TE and study's geographic location through a metaanalysis; and 3) to report findings on the conditional risk for PTSD from an epidemiological survey performed in Brazil.



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Methods (objectives 1 and 2): Studies were selected through literature search in electronic databases, review of the reference list of the selected articles and contact with researchers in PTSD. Preliminary results: a total of 21 studies were included. The conditional risk for PTSD varied from 0 to 15% (women 0–24%, men 0–10,6%). Sexual trauma and childhood sexual abuse were TEs with higher conditional risks in the majority of the selected studies (0 to 44,4%, women 0–49%, men 0–77%). Conclusion/expected outcomes: We project that our results will point out differences in the conditional risks for PTSD regarding type of TE and study's geographic location. We believe that our research may aid in primary and secondary prevention of PTSD by identifying individuals and populations at risk and defining types of traumatic events most likely to be index traumas for the development of PTSD. The results may also aid the design of future preventive public mental health policies.



**ISABELLA MARIA DE
OLIVEIRA PONTES**

POSITION TITLE:

Psychobiology Master Student

INSTITUTION AND LOCATION	DEGREE	FIELD OF STUDY
Federal University of Rio Grande do Norte, Brazil	B.S.	Biomedicine

BIO SKETCH:

The goal of my research project is to investigate the effect of chronic and acute treatment with lithium in the aversive memory, anxiety and depression in rats. I have been working on this project since I was an undergraduate student. I graduated in Biomedicine and chose this field because I've always intended to be a researcher. I've been involved in undergraduate research activities since the first university term in the Memory Studies Laboratory at UFRN, where I have a five-year background, with specific training and expertise in key research areas for the execution of this project. During undergraduate studies I participated in other projects, mostly in one focusing in episodic memory, which yielded two papers. Nowadays, I am in the middle of the master's degree and I am coordinating my own project under the supervision of my advisor.

Recent Publications

Barbosa, FF; Pontes, IM; Ribeiro, S; Ribeiro, AM; Silva, RH. Differential roles of the dorsal hippocampal regions in the acquisition of spatial and temporal aspects of episodic-like memory. *Behavioural Brain Research*, v. 232, p. 269–277, 2012.

Barbosa, FF; Pontes, IM; Ribeiro, AM; Silva, RH. Extending possible applications of an episodic-like memory task in rats. *Behavioural Brain Research*, v. 215, p. 326–331, 2010.

SUMMARY PROJECT:

Lithium is the main treatment for bipolar disorder, and shows antidepressant-

like effect in animal models of depression. In addition, several studies have shown the neuroprotective, antiapoptotic and neurogenic effects of lithium. Electrophysiological studies reveal that chronic lithium treatment increases long-term potentiation (LTP) in the hippocampus, which is the major neurophysiological basis for learning and memory. However, the possible association between the effects of lithium on mood and memory remains to be investigated. The relationship between memory and negative emotions has been investigated and studies have shown that fear/anxiety is a necessary step to memory formation. This relationship between memory and anxiety has been simultaneously investigated in rodents tested in the plus-maze discriminative avoidance task (PMDAT). In this task, the animals are conditioned to choose between two enclosed arms (an aversive and a non-aversive arm) while avoiding the open arms of the apparatus. The aim of the present study is to investigate the effects of acute and chronic lithium treatment on aversive memory, anxiety and depression in rats tested in the PMDAT and forced swim test (FST). In addition, evaluation of BDNF levels in the hippocampus and amygdala will be conducted. Three-month-old male rats submitted to PMDAT and FST will be previously treated with lithium carbonate (50, 100 or 200 mg/kg) or saline acute (1 hour before the training in the PMDAT and 1 hour before the test in the FST) or chronically (21 days). Immunohistochemistry will be held to quantify BDNF.



**JOÃO PAULO MAIA DE
OLIVEIRA**

POSITION TITLE:

PhD Student

INSTITUTION AND LOCATION	DEGREE	FIELD OF STUDY
Universidade Federal do Rio Grande do Norte (UFRN), Natal, Brazil	MD	Medicine
Universidade de São Paulo (USP) Ribeirão Preto, Brazil	MSc	Psychiatry/ psychopharmacology

BIO SKETCH:

João Paulo Maia de Oliveira is currently a PhD student at Universidade de São Paulo (USP), Department of Neuroscience and Behavioral Sciences. His Ph.D. research involves psychopharmacology and prevention treatment studies in schizophrenia. He obtained his degree in medicine from UFRN in 2004 and Master's degree in Psychopharmacology from USP in 2010. To date, he has authored or co-authored eight publications in refereed journals.

SUMMARY PROJECT:

In this project, we present preliminary results of experiments involving an animal model of schizophrenia, which consists of acute injection of ketamine (NMDA antagonist) in sub anesthetic doses and analysis of hyperlocomotion and



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stereotyped behavior in rats. In this experiment, groups of animals were tested in the open field (locomotor activity) with subsequent injections of ketamine, or sodium nitroprusside (SNP, 2mg/kg and 4 mg / kg, a nitric oxide donor) plus a further injection of ketamine at different times (12 hours, 24 hours, 48 hours and 7 days). The results showed that the behavior hiperlocomotor induced by sub-anesthetic doses of ketamine was attenuated when animals are pretreated with NPS compared to control animals. Our data suggests that drugs which target the system may represent new alternatives to prevent some symptoms of schizophrenia.



ARTHUR CAYE

POSITION TITLE:

Federal University of Rio Grande do Sul (UFRGS) – Graduation Student

INSTITUTION AND LOCATION	DEGREE	FIELD OF STUDY
Federal University of Rio Grande do Sul, Brazil		Child and Adolescent Psychiatry

BIO SKETCH:

Arthur Caye had always shown great interest in research and Psychiatry, and started working with his current supervisor, Luis Augusto Rohde, since his first year of Medical training. Since then he has been involved in many of the ADHD Outpatient Program projects coordinated by Rohde. He is co-author of the article Evidence-based information on the clinical use of neurofeedback for ADHD, recently published on Neurotherapeutics. He has also been working in a randomized clinical trial evaluating Neurofeedback as an early intervention for ADHD, and in his own project regarding inter-parental agreement on ADHD rating scores.

SUMMARY PROJECT:

IDENTIFYING HIGH-RISK INDIVIDUALS FOR ADOLESCENT PSYCHOPATHOLOGY: INTEGRATING EPIDEMIOLOGIC AND NEUROBIOLOGICAL EVIDENCE FOR A COMPOSED RISK SCORE

Mental disorders are a leading cause of impairment and mortality among adolescents. Depression and ADHD are two of the main diagnosis made in this age group. During adolescence, the prevalence of depression rises from 5 to 20%, while ADHD prevalence has a strong declining pattern. Early intervention strategies are being developed for these disorders, but these approaches are currently limited by the lack of knowledge on which subjects to target. Our objective is to identify risk factors for the incidence of depression and the persistence of ADHD during adolescence already determined by previous research and integrate these findings within a longitudinal prospective study (cohort), in order to create a reliable, evidence-based composed risk index.



**BRUNA SCHILLING
PANIZZUTTI**

POSITION TITLE:

Ph.D. Student

INSTITUTION AND LOCATION	DEGREE	FIELD OF STUDY
Federal University of Rio Grande do Sul, Brazil	B.Sc.	Biomedicine

BIO SKETCH:

As an intern since 2009 at Molecular Psychiatry Laboratory I have been involved in psychiatry research from basics to clinical science. Now, as a PhD student, I participated over the last year, in all stages of development work resulting in the article Effects of omega-3 dietary supplement in prevention of positive, negative and cognitive Symptoms: A study in adolescent rats with ketamine-induced schizophrenia model (C.S. Gama et al., 2012). The exciting results of this trial and the literature evidence provided a rationale for testing the effects of N-Acetylcysteine (NAC) for prevention of psychosis in ultra-high risk population for schizophrenia. This is a highly novel project and has the potential to advance our knowledge substantially. I am full-time committed to the NAC project.

SUMMARY PROJECT:

EFFECTS OF TREATMENT WITH N-ACETYL CYSTEINE IN AN ANIMAL MODEL OF SCHIZOPHRENIA INDUCED BY KETAMINE

Schizophrenia is a heterogeneous disease extremely debilitating, considered one of the most morbid psychiatric disorders. Schizophrenia is characterized by multifactorial, involving genetic, neurodevelopmental and environmental vulnerabilities. Early diagnosis and prevention has been one of the targets to improve long-term outcomes. Currently there are a growing number of studies exploring the use of NAC in the treatment of psychiatric illness, with evidence of potential benefit of the drug in a number of disorders, many of which have limited treatment today and with unsatisfactory results. A large-scale study investigating NAC as an adjunctive therapy for schizophrenia was conducted (Berk M et al. 2008), where 1000mg of NAC were taken in two doses / day in addition to the existing medication over 6 months. Improvements were seen in negative symptoms. Moreover, improvements in overall function and abnormal movements, particularly akathisia, have also been reported. Wistar rats will be administered for 15 days, a dose of N-acetyl cysteine (NAC), as a preventive treatment. After, for seven days, saline or ketamine will be administered, for the development or otherwise of schizophrenia-like behavior in these animals. With the model induced behavioral tests will be conducted to evaluate positive symptoms (open field), negative symptoms (social interaction) and cognitive symptoms (avoidance). Then the predictive testing the animals will be euthanized and structures prefrontal cortex, striatum and hippocampus are dissected for subsequent biochemical analyzes (oxidative stress, mitochondrial parameters, inflammatory markers and neurotrophins)



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CHRISTIAN KIELING

POSITION TITLE:

Post-doctoral student at UFRGS

INSTITUTION AND LOCATION	DEGREE	FIELD OF STUDY
Federal University of Rio Grande do Sul, Brazil	MD	Medicine
Federal University of Rio Grande do Sul, Brazil	MSc	Psychiatry
Federal University of Rio Grande do Sul, Brazil	PhD	Psychiatry

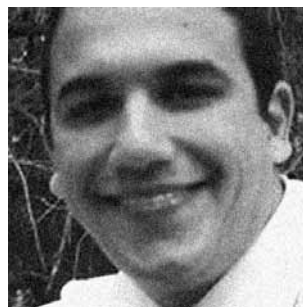
BIO SKETCH:

Christian Kieling is a child and adolescent psychiatrist from Porto Alegre, Brazil. He concluded his undergraduate studies in Communications and his medical training both at the Federal University of Rio Grande do Sul (UFRGS), where he also earned MSc and PhD degrees in Psychiatry. He is currently holding a post-doctoral position at UFRGS, conducting research on depression and attention-deficit/hyperactivity disorder among adolescents. He also serves as faculty member at the Graduate Program in Psychiatry at UFRGS and is responsible for courses to medical and MSc/PhD students. He has published more than 40 items in peer-reviewed journals, including the Lancet, the American Journal of Psychiatry and Biological Psychiatry. He worked as associate editor for the Revista Brasileira de Psiquiatria, as consultant to the Publications Committee of the World Psychiatric Association, as well as ad hoc reviewer for journals such as the American Journal of Psychiatry, the British Journal of Psychiatry and the Journal of the American Academy of Child and Adolescent Psychiatry.

SUMMARY PROJECT:

ASSESSING THE OCCURRENCE OF ADOLESCENT DEPRESSION AND THE PERSISTENCE OF ATTENTION-DEFICIT/HYPERACTIVITY DISORDER USING COMPOSITE RISK SCORES

Mental disorders are among the leading cause of impairment and mortality among adolescents worldwide. Depression and attention-deficit/hyperactivity (ADHD) disorder are two of the most important diagnostic categories in this age group. During adolescence, the cumulative risk for depression rises from 5% to 20%, whereas symptoms of ADHD exhibit a pattern of decline in some, but not in all individuals. Early intervention strategies are being developed for these disorders, but these approaches are currently limited by the lack of knowledge on which subjects to target. This project aims to develop a composite risk index for the occurrence of depression and the persistence of ADHD during adolescence using data from the Pelotas 1993 Birth Cohort Study (5,249 individuals followed up to the age of 18 years, with a retention rate of 81.4%). In a second phase of this study, we plan to assess neurobiological markers associated with at-risk states to further understand the mechanisms associated with the onset and chronicity of mental disorders among youth.



**GIOVANNI ABRAHAO
SALUM JUNIOR**

POSITION TITLE:

Post-doctoral research fellow at the Federal University of Rio Grande do Sul

INSTITUTION AND LOCATION	DEGREE	FIELD OF STUDY
Federal University of Rio Grande do Sul, Brazil	MD	Medicine
Federal University of Rio Grande do Sul, Brazil	PhD	Psychiatry

BIO SKETCH:

Giovanni Abrahão Salum is currently a post-doctoral research fellow at the Federal University of Rio Grande do Sul. He finished medical school in 2009 at the same university and graduated summa cum laude in 2012 at the Post-graduate Program in Medical Sciences – Psychiatry (CAPES 7). His doctorate also included a sandwich period at the Emotion and Development Branch, National Institutes of Mental Health (NIMH). He is part of the Anxiety Disorders Program, the Outpatient Attention Deficit/Hyperactivity Program from the Hospital de Clínicas de Porto Alegre and the National Institute of Developmental Psychiatry for Children and Adolescent.

He has 34 papers published, 113 citations and a H-index of 7 (SCOPUS). He was a member of the editorial board of the Revista Brasileira de Psiquiatria (junior Editor; 2008-2012) and is a scientific referee for several journals in psychiatry.

His work focuses on studying clinical and biological aspects of pediatric anxiety disorders and attention deficits/hyperactivity disorder. In the last years he is specifically interested in measures of pathophysiology and also in brain imaging and genetics.

SUMMARY PROJECT:

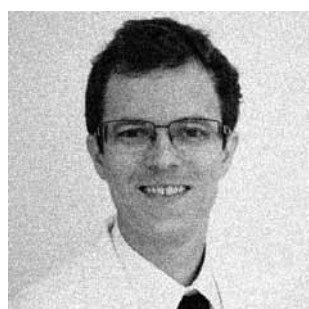
CAN COGNITIVE NEUROSCIENCE INFORM RISK FOR ATTENTION DEFICIT HYPERACTIVITY DISORDER?

Background: Prevention has recently become a hot topic in psychiatry research. Despite that, we still don't know exactly who is at risk for developing psychiatric disorders early in life. Therefore it is difficult to elaborate indicated strategies for children at risk for psychiatric disorders. The objective of this project is to look for neurocognitive measures that are associated specifically with Attention Deficit Hyperactivity Disorder (ADHD) and to test current theories about ADHD pathophysiology. To study mental processes that are associated with mental disorders has found to be a key ingredient to advance research in prevention and early intervention. Increased intra-subject variability in reaction times (RT) is one of the most replicable behavioural correlates of Attention Deficit/Hyperactivity Disorder (ADHD) literature. However, the exact neuropsychological significance and the diagnostic specificity of such effects remain unclear. Here we investigate two questions: (1) Are patterns of ADHD-related RT variability affected by time on task effects – consistent with heightened sensitivity to the effects of fatigue in this group? (2) Is such



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variability characterized by patterns of low frequency periodic fluctuations, suggestive of spontaneous occasional lapses in attention? In each case we also examine the extent to which such effects are specific to ADHD. Methods: A total of 667 subjects (6-12 years old) from a non-referred sample were classified into non-overlapping groups consisting of typically developing children (TDC; n=377), and children with fear disorders (n=91), distress disorders (n=56), ADHD (n=103), and oppositional defiant disorder/conduct disorder (ODD/CD; n=40). We used a simple 2-Choice Reaction Time to obtain within session RT series data. Analyses were performed on both time (functional analysis of variance) and frequency (spectral analysis and 1/f modeling) domains. Results: Higher RT variability was specifically associated with ADHD. However, neither time on task nor periodic oscillations were able to explain ADHD-related RT findings. Interestingly, ODD/CD presented a different variability of RT pattern than TDC in specific frequency bands. Conclusions: RT variability in ADHD does not appear to be related to either time on task effects or low frequency oscillations linked to attention lapses. In contrast periodicity may characterize RT variability in ODD/CD. RT variability may be an interesting neurocognitive marker to look for children at risk for ADHD. Further prospective studies are needed.



OMAR J. CASSOL JR

POSITION TITLE:
Researcher

INSTITUTION AND LOCATION	DEGREE	FIELD OF STUDY
Universidade Comunitária de Chapecó, Brazil	PharmD	Pharmacy
Universidade do Extremo Sul Catarinense, Brazil	MD	Medicine
Universidade do Extremo Sul Catarinense, Brazil	MSc	Pathophysiology
Hospital Psiquiátrico São Pedro, Brazil	Psychiatry	Psychiatry

BIO SKETCH:

Attending to the 2nd year of Psychiatry Residency in São Pedro Psychiatric Hospital, Porto Alegre, RS. PhD student in Health Sciences - Neurosciences at the University of Southern Santa Catarina (UNESC). Graduated in Medicine, class of 2010, at the University of Southern Santa Catarina (UNESC). Master's Degree (2010) in Health Sciences - Pathophysiology at the University of Southern Santa Catarina UNESC. Graduated in Pharmacy, class of 2004, at the Universidade Comunitária de Chapecó (UNOCHAPECÓ).

Publications in the area of sepsis, novel pharmacologic approaches in septic encephalopathy and behavior.

Erythropoietin reverts cognitive impairment and alters the oxidative parameters and energetic metabolism in sepsis animal model. J Neural Transm.

2012 Nov;119(11):1267-74.

Alterations in Inflammatory Mediators, Oxidative Stress Parameters and Energetic Metabolism in the Brain of Sepsis Survivor Rats. Neurochemical Research, v. 36, p. 304-311, 2011.

Oxidative mechanisms of brain dysfunction during sepsis. Neurochemical Research, v. 35, p. 1-12, 2010.

Effects of N-Acetylcysteine/Deferoxamine, Taurine and RG-3095 on Respiratory Chain Complexes and Creatine Kinase Activities in Rat Brain After Sepsis. Neurochemical Research, v. 35, p. 515-521, 2010.

Low dose dexamethasone reverses depressive-like parameters and memory impairment in rats submitted to sepsis. Neuroscience Letters (Print), v. 473, p. 126-130, 2010.

Treatment with cannabidiol reverses oxidative stress parameters, cognitive impairment and mortality in rats submitted to sepsis by cecal ligation and puncture. Brain Research, v. 12, p. 128-138, 2010.

Depressive-Like Parameters in Sepsis Survivor Rats. Neurotoxicity Research, v. 17, p. 279-286, 2009.

Oxidative variables and antioxidant enzymes activities in the mdx mouse brain. Neurochemistry International, v. 55, p. 802-805, 2009.

SUMMARY PROJECT:

Psychiatry symptoms and disorders are present in many medical conditions and its presence generally worsens the overall outcome and may turn a simple and effective treatment into a major challenge. In this context, muscular dystrophy (MD) patients may also present psychiatric disorders, negatively impacting on the dystrophy treatment and cause intense suffering. MDs are among the most known severe diseases that affect skeletal muscles and, recently, the brain. They present a constant degeneration-regeneration cycle which may, in time, not fully recover. Clinically the patients with MD present both motor and cognitive impairment, reducing patients' mobility and functionality and increasing family burden and dependence. Since it is a chronic disease and produces a strong impact on both patients and their families, it may also produce psychiatry symptoms such as anxiety and depression. Dystrophic patients present low levels of BDNF which might be even lower in the presence of psychiatric symptoms. This study aims to draw a profile of psychiatric disorders and symptoms in patients affected by muscular dystrophy as well as their family members or caregivers and correlate with the BDNF levels. In order to accomplish our objectives, the patients and their families or caregivers will be submitted to the Mini-International Neuropsychiatric Interview (M.I.N.I.) as well as clinical psychiatric evaluation by an experienced clinician. Blood will be drawn by a nurse technician to assess BDNF levels.



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PATRICIA MANZOLLI

POSITION TITLE:

Postdoctoral student in Universidade Federal de São Paulo

INSTITUTION AND LOCATION	DEGREE	FIELD OF STUDY
Universidade Federal de Pelotas	PhD	Epidemiology

BIO SKETCH:

I am psychiatrist, with specialization in childhood and adolescence psychiatry on Hospital de Clinicas de Porto Alegre; and master and PhD in Epidemiology on Federal University of Rio Grande do Sul (UFRGS). During my master and PhD I worked in project "Mental Health and violence from ECCAGE – the Study of Food Intake and Eating Behavior in Pregnancy in Brazil" and I have some publications with this project:

Nunes, M.A.A.; Ferri, C.P.; Manzolli, P., et al. Nutrition, mental health and violence: from pregnancy to postpartum Cohort of women attending primary care units in Southern Brazil – ECCAGE study. BMC Psychiatry, 2010.

Manzolli, P.; Nunes, M.A.A.; et al. Violence and depressive symptoms during pregnancy: a primary care study in Brazil. Social Psychiatry and Psychiatric Epidemiology 2010.

Drehmer, M.; Camey, S.; Manzolli, P.; et al Socioeconomic, demographic and nutritional factors associated with maternal weight gain in general practices in Southern Brazil. Cadernos de Saúde Pública, 2010.

Manzolli, P.; Nunes, M.A.A.; Schmidt, M.I.; Ferri, C.P. Abuse Against Women, Depression, and Infant Morbidity. American Journal of Preventive Medicine, 2012.

I'm teacher of psychiatry in Universidade Federal de Pelotas since 2011 and currently, I'm a postdoctoral student in Universidade Federal de São Paulo, working on project "Estudo Epidemiológico da Saúde Mental

SUMMARY PROJECT:

MENTAL HEALTH OF MOTHERS OF SCHOOL-AGE CHILDREN WITH DISABILITIES IN FOUR SCHOOLS OF DIFFERENT GEOGRAPHICAL AREAS IN BRAZIL

Objective: The present study investigated the mental health status of mothers of children with disabilities in four schools of different geographical areas in Brazil. Method: A cross sectional study was conducted in schools of four regions of Brazil, with a total sample of 1562 children aged 6 to 16 years. All children aged 6 to 9 years (n=890) entered the present study. Disability was assessed by a ten-question screening questionnaire and maternal mental health problems were identified by a total score greater than 7 in the Self-Report Questionnaire (SRQ-20). Data were analyzed using Poisson Regression. Results: 37% of children were screened positive for disability (22% had one positive question and 15% had two or more positive questions in the applied scale). The prevalence rate of maternal common mental disorders was significantly higher among children with disability (30% and 40% respectively

for children with one positive and two or more positive questions for disability) compared to healthy children (21%). Children presenting one positive question for disability were 1.26 (95% CI 0.97-1.63) more likely to have a mother with common mental disorders than healthy children, while the adjusted odds ratio for children presenting two or more positive questions was 1.91 (95% CI 1.48-2.44). Conclusion: The cross-sectional design of the study precludes any conclusion about the direction of the association though it is important to include treatment of maternal common mental disorders when planning psychosocial interventions for these vulnerable children.



RAFFAEL MASSUDA

POSITION TITLE:

PhD Student

INSTITUTION AND LOCATION	DEGREE	FIELD OF STUDY
Universidade Federal do Paraná, Brazil	M.D.	Medicine
Universidade Federal do Rio Grande do Sul, Brazil	Medical Psychiatry	Psychiatry

BIO SKETCH:

Raffael Massuda is currently a PhD research fellow at the Federal University of Rio Grande do Sul (UFRGS). He finished medical school in 2007 at Federal University of Parana (UFPR) and Psychiatry Residency in 2010 at Federal University of Rio Grande do Sul (UFPR). He has 09 papers published. His work focuses on studying schizophrenia and bipolar disorder. In the last years he is specifically interested in neuroimaging, endophenotypes, and staging in psychiatry disorders. Nowadays he is a member of the Molecular Psychiatry Laboratory at Hospital de Clinicas de Porto Alegre.

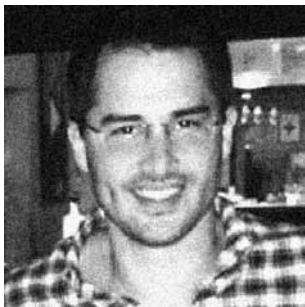
SUMMARY PROJECT:

VERBAL MEMORY DEFICIT IN SIBLINGS OF PATIENTS WITH SCHIZOPHRENIA.

Background: Verbal Memory (VM), Working Memory (WM), and Executive Function (EF) have been largely studied in patients with schizophrenia (SZ) and proposed as endophenotypes of the disease. Patients in all stages of the disease have exhibited reduced VM, EF and WM capacity. Stroop Test has been used to access EF; Hopkins Verbal Learning Test (HVLT) to access VM and Wechsler Adult Intelligence Scale (WAIS-III) to access WM (Letter-Number Sequencing and Digit Span). The aim of this study was to test VM, WM and EF in healthy siblings of patients with SZ (SB) to compare it with matched healthy controls. Methods: Forty-five SB (24 females, ages mean 39.6 ± 1.8 and mean of years of education 12.08 ± 3.6) were compared with forty-five healthy controls (23 females, ages mean 38.7 ± 1.3 and mean of years of education 12.02 ± 3.0). Results: SB performed worse than controls in VM test ($p < 0.01$, $r = 0.3$ on the delayed recall test and $p < 0.05$, $r = 0.2$ to total recall test). However



no differences have been found in executive function (Stroop Interference) ($p = 0.88$) or WM ($p = 0.19$ to LetterNumber Sequencing and $p=0.61$ to Digit Span). Conclusion: We haven't found differences in working memory or executive function when SB were compared with healthy controls, however we found a significantly difference in VM with a small effect size. Our results support the hypothesis that impairment in verbal learning could be considered an intermediary phenotype of SZ. More studies are necessary to identify if impairment in VM is a risk factor to develop psychiatry disorders.



**THIAGO BOTTER MAIO
ROCHA**

POSITION TITLE:
MSc student

INSTITUTION AND LOCATION	DEGREE	FIELD OF STUDY
Federal University of Rio Grande do Sul, Brazil	MD	Medicine

BIO SKETCH:

Thiago Botter Maio Rocha is a child and adolescent psychiatrist from Porto Alegre, Brazil. He concluded his medical training at the Federal University of Rio Grande do Sul (UFRGS), where he also has just been admitted to the Post-Graduate Program for MSc degree in Psychiatry. He has done both his Psychiatry and Child and Adolescent Psychiatry training at the Hospital de Clinicas de Porto Alegre (HCPA) Medical Residency Program.

SUMMARY PROJECT:

Mental disorders are the leading causes of morbidity and mortality among adolescents, affecting the quality of life of individuals not only in this period but throughout adulthood. This project aims to examine factors associated with changes in the course of two major psychiatric diagnoses in adolescence. During adolescence, the prevalence of depressive disorders increases from about 5% to 20%. The attention deficit / hyperactivity disorder (ADHD), which affects more than 5% of children, reaches remission in many, but not all affected individuals in adolescence. Thus, our goal is to identify predictors of incidence of depression and persistence of ADHD in the period between 11 and 18 years old. In a first phase, we will identify individual risk factors for outcomes above, from the literature review and study of 1993 Pelotas Birth Cohort, which includes more than four thousand participants followed until age 18. From these findings, we will develop a composite score of risk for incidence of depression and persistence of ADHD in adolescence. The identification of modifiable risk factors and the development of risk scores predictors of incidence and chronicity may assist in defining public policies for reducing the burden of disease in adolescence and in subsequent ages.



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ANGELA KALINE MAZER

POSITION TITLE:

Master student

INSTITUTION AND LOCATION	DEGREE	FIELD OF STUDY
Departament of Neurosciences and Behavioral Sciences, Faculty of Medicine of Ribeirão Preto - University of São Paulo, Brazil	Master	Early stress/ Personality disorders/ Psychoneuroendocrinology
Medical School of São José do Rio Preto	MD	Medicine
Faculty of Medicine of Ribeirão Preto- University of São Paulo - FMRP / USP	Residency	Psychiatry

BIO SKETCH:

Medical doctor graduate at Medical School of São José do Rio Preto (2004). Residency in Psychiatry at the Faculty of Medicine of Ribeirão Preto- University of São Paulo -FMRP / USP (2005-2007), and specialization in Psychotherapy (2008).Member of Brazilian Psychiatry Association since 2008.Currently have been developing assistance, teaching and research activities in Day Hospital FMRP/USP.Master student in Mental Health Postgraduate Program at Department of Neurosciencesand Behavior Science, FMRP / USP. Research field in borderline personality disorder, bipolar disorder and early life stress.

Academic achievements and publications:

MAZER, A. K.; DOMINGOS, N.A.M. Avaliação Psicossocial de Pacientes Pediátricos com Câncer (Psychosocial Assessment of Pediatric Patients with Cancer). HB Científica (FUNFARME). , v.10, p.10 - , 2003.

PAZ, D.A.; MAZER, A. K. . Diagnóstico Diferencial em Paciente com Sintomas de Humor e Sintomas Psicóticos (Differential Diagnosis in Patients with Mood Symptoms and Psychotic Symptoms). 2010. (Poster presentation/Congress)

MAZER, A. K. ; PINTO, J.P. ; CHAVES, C. ; MORAIS, S.L. ; HALLAK, J.E.C. . Agressividade e Síndrome de Cornélia de Lange: relato de caso e revisão da literatura(Aggressiveness and Cornelia de Lange syndrome: case report and literature review). 2007. (Poster presentation/Symposium)

PINTO, J.P.; MORAIS, S.L.; MAZER, A. K. Dificil diagnóstico de quadro de intensa agressividade em paciente mantido sob contenção física contínua por 2 anos (Difficult diagnostic in patient with intense aggression and maintained on physical restraint continued for 2 years). 2007. (Oral presentation/Congress)

SUMMARY PROJECT:

Bipolar Disorder (BD) and Borderline Personality Disorder (BPD) have common clinical features that difficulties the differential diagnosis. Factors involved in its development and neurobiology, as early stress and psychoneuroendocrine markers, may represent indicators that differentiates them.

Assessment of early life stress and HPA axis associated with diagnosis of BD and BPD, in 26 subjects results in positive correlations between specific types of early stress and hormonal dosage in this preliminary sample. Thus, it indicates a possible distinguishing factor between the disorders studied by the analysis of parameters related to stress and early functioning of the HPA axis.



ARY GADELHA DE ALENCAR ARARIPE NETO

POSITION TITLE:

PhD Student

INSTITUTION AND LOCATION	DEGREE	FIELD OF STUDY
Universidade Federal do Ceará (UFC)	MD	Medicine
Universidade Federal de Sao Paulo (UNIFESP), Department of Psychiatry	Psychiatry Residency	Psychiatry

BIO SKETCH:

Ary Gadelha obtained his Bachelor's degree in Medicine at Universidade Federal do Ceará (UFC) in 2004, finished the Psychiatry Residency in 2007, and is currently a PhD student at Universidade Federal de Sao Paulo (UNIFESP), Department of Psychiatry. He is a member of the Interdisciplinary Laboratory of Clinical Neurosciences (Linc) at the Department of Psychiatry of UNIFESP and the scientific coordinator of the Schizophrenia Program (PROESQ) of UNIFESP. He is also the general coordinator of PRISMA, which is an outpatient clinic to individuals at-risk for psychotic disorders. Todate, he has authored or co-authored thirteen publications in refereed journals. The main interest of his Ph.D. research involves the characterization of the measurements of endopeptidases activity in schizophrenia and first episode psychosis.

SUMMARY PROJECT:

Several different evidences point toward the involvement of the DISC1 protein and its ligands such as the nuclear distribution element-like (Ndel1) in schizophrenia (SCZ). The interaction with the SCZ vulnerability marker DISC1 regulates Ndel1 enzymatic activity. This led us to determine and compare the plasma Ndel1 enzyme activity of 92 SCZ patients and 97 health controls (HCs). A 32% lower mean value for Ndel1 activity was observed in SCZ patients compared to HCs ($t = 4.47$; $p < 0.001$). The AUC for receiver operating characteristic (ROC) curve was 0.703. Treatment-resistant (TR) SCZ patients presented a significant lower Ndel1 activity compared to non-TR patients ($t = 2.25$; $p = 0.027$). A lower enzymatic activity was significantly associated with both non-TR ($p = 0.002$; $B = 1.19$; $OR = 3.29$, CI 95% 1.57-6.88) and TR patients ($p < 0.001$; $B = 2.27$; $OR = 9.64$; CI 95% 4.12-22.54). The confounding effects of treatment with antipsychotic drug (clozapine or olanzapine), nicotine dependence, and body mass index revealed no significant correlation with the



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measured Ndel1 enzyme activity. This is the first study showing that Ndel1 enzyme activity is different among SCZ patients and HCs, with significant lower plasma Ndel1 activity for TR patients compared to non-TR. Our findings further support the investigation of the Ndel1 enzyme activity as a promising approach for the understanding of DISC1 and Ndel1 pathway, and of the neuropeptides roles in SCZ etiology.



**CAMILA MIYAGUI
YONAMINE**

POSITION TITLE:
Postdoc Student

INSTITUTION AND LOCATION	DEGREE	FIELD OF STUDY
UNIFESP	MSc	Schizophrenia Disease
UNIFESP	PhD	Central Nervous System

BIO SKETCH:

Camila Miyagui Yonamine is currently a Postdoc student at Universidade Federal de Sao Paulo (UNIFESP), Department of Pharmacology. Her Posdoctoral research involves the study of oligopeptidases in Schizophrenia. She obtained her Bachelor's degree in Biologist from MACKENZIE in 2004 and Master's degree in Nuclear Technology Application from IPEN (Nuclear and Energy Research Institute) in 2007. She has also been a member of the Interdisciplinary Lab of Clinical Neurosciences at the Department of Psychiatry of UNIFESP. To date, she has authored one national and three international publications and co-authored two international publications, including one article in Schizophrenia Bulletin Journal.

SUMMARY PROJECT:

OLIGOPEPTIDASES IN SCHIZOPHRENIA

Camila M. Yonamine, Ary G.A.A. Neto, Vitor Oliveira, Rodrigo A. Bressan, Mirian A.F. Hayashi

Schizophrenia (SCZ) is a severe chronic mental disease. The angiotensin I-converting enzyme (ACE) is mainly known due to its ability to convert Ang I into Ang II, which has hypertensive activity, but this oligopeptidase exhibits broad substrate specificity. ACE catalyzes the degradation of bradykinin (BK), neurotensin (NT), substance P, enkephalins, and other peptides. Interestingly, NT is a neuropeptide implicated in the pathophysiology of SCZ. Moreover, NT receptor agonists have been recently suggested to be potential antipsychotics. It is important to mention that ACE is widely distributed in many tissues, including the CNS, and changes in the levels of ACE have been found in the brain of SCZ patients. Although statistically not significantly, elevated cerebrospinal fluid (CSF) has been reported in neuroleptic-treated chronic patients. Thus, our primary objective in this project is to compare the plasma ECA enzyme activity levels of SCZ patients and healthy controls (HCs). Herein,

88 SCZ patients were compared to 102 healthy controls (HCs) regarding ACE specific enzymatic activity in plasma. Subjects with hypertension and/or using antihypertensive drugs were excluded. A significantly lower mean value for ACE activity in SCZ patients compared to HCs ($F=0.16$, $p<0.001$) was observed. Individuals with ACE enzymatic activity above the median increased almost 4 times the risk for SCZ ($p<0.001$; OR= 3.9, CI 95% 2.13-7.12). The area under the receive operating characteristic (ROC) curve was 0.70, suggesting a moderate prediction accuracy. Further studies are needed to improve our understanding on the biological underpinnings of the observed difference. This knowledge might contribute to find new biomarkers with potential clinical use in supporting diagnosis and/or drug-choice. Financial support from FAPESP, CNPq and CAPES.



CAROLINA CAPPI

POSITION TITLE:

INSTITUTION AND LOCATION	DEGREE	YEAR(S)	FIELD OF STUDY
University of São Paulo State Julio de Mesquita Filho, UNESP/RIO CLARO, Brazil	Bachelor's in Biological Science	2000	Biology Science
University of São Paulo State Julio de Mesquita Filho, UNESP/RIO CLARO, Brazil	Teacher in Biology Science	2002	Biology Science
University of São Paulo State Julio de Mesquita Filho, UNESP/RIO CLARO, Brazil	MSc	2006	Zoology

BIO SKETCH:

I am currently a third-year PhD candidate at the Psychiatric Institute of the University of São Paulo. My research focuses on rare variation in the genome of obsessivecompulsive disorder patients (using array and whole exome sequencing). These variations are involved with neurodevelopmental genes that can help us understand the risk factors for developing mental disorder. In the period from October 2011 until June 2012 I did an Exchange program of PhD at Yale University, Laboratory of Matthew W. State, M.D., Ph.D. Department of Psychiatry Yale University School of Medicine, learning analysis of copy number variation and rare single nucleotide variation. Is a research collaborator of INPD (National Institute of Development Psychiatry) and) and PROTOC (OCD Research Group at the University of São Paulo). To date, I have published eight scientific articles in refereed journals.



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SUMMARY PROJECT:

WHOLE-EXOME SEQUENCING IDENTIFIES DE NOVO POINT MUTATIONS IN OBSESSIVE COMPULSIVE DISORDER

Carolina Cappi; Helena Brentani; Stephan J. Sanders; Michael T. Murtha; Juliana Diniz; Michael Walker; Leandro Lima; Renato Puga; Viviani Neri; Roseli Shavitt; Michael Bloch; Matthew W. State; Euripedes Constantino Miguel, Thomas V. Fernandez

Whole exome sequencing for rare and de novo variants has become an essential approach for gene discovery in psychiatric disease. However, the overall contribution of rare and de novo single nucleotide variants SNVs to obsessive-compulsive disorder (OCD) remains to be characterized. We conducted a family-based study of 20 OCD sporadic trios (affected proband and their unaffected parents) to determine the frequency of spontaneous (de novo) mutation and to identify novel risk regions and relevant molecular pathways in OCD. Since a large amount of data generated, we consider those with greatest impact on protein function, missense, nonsense, and canonical splice site variants, using the RefSeq hg19 reference genome. We found 13 de novo variations. We confirmed, via PCR, 11 de novo SNVs in 18 OCD trios that passing quality control. Using an in-house script algorithm, we generated a protein-protein interaction (PPI) network of the genes harboring de novo SNVs. Subsequently, a pathway analysis was conducted using the genes of this network in Ingenuity Pathway Analysis (IPA, Ingenuity Systems, www.ingenuity.com). This analysis found an enrichment of genes involved in immunological systems. We then used GeneMANIA to extend the list with functionally similar genes based on genomic and proteomic data. Pathway enrichment using this extended gene list confirmed the involvement of immunological systems. We conducted an pathway analysis, using IPA, of inherited rare variants, annotated using data from the 1000 Genomes Project and NHLBI GO Exome Sequencing Project.



CELINA ANDRADE PEREIRA

POSITION TITLE:

Master Degree Student, psychologist

BIO SKETCH:

Celina Andrade Pereira is currently a Master Degree student at Universidade de Sao Paulo (USP), Department of Psychiatry. Her master degree project involves a teleeducation program to train elementary teachers in child psychiatry. She obtained her Bachelor's degree in Psychology from Pontificia Universidade Católica de Sao Paulo (PUC-SP) in 1998 and two post-graduations *latu sensu* in drug addiction prevention in 2001 and 2006, both at the Department of Psychiatry of UNIFESP. To date, she is finishing, as the first author, three scientific articles in refereed journals. She wrote and translated two books and a chapter in a book.

SUMMARY PROJECT:

MENTAL HEALTH TRAINING FOR ELEMENTARY SCHOOL TEACHERS AND ITS IMPACT ON SCHOOL ATMOSPHERE – AN INPD PROJECT

MAIN OBJECTIVES: To develop and test the efficacy of a computer-based training to elementary school teachers of the most common mental health problems. Outcomes: (a) early identification of the most common mental health problems among children and adolescents, (b) teacher's acquirement of manage skills to better deal with behavior problems and (c) teacher's acquisition of important knowledge to refer students to treatment when necessary.

METHODOLOGY: The content used in the educational intervention is based on a) Similar telemedicine tools already developed in other countries and consulting to specialized professionals in child and adolescent psychiatry and child education. The partnership with the Department of Telemedicine, Faculty of Medicine, University of São Paulo enabled the development of telemedicine tools.

Telemedicine tools:

- Website
- Tutorials
- Educational videos
- Strengths and Difficulties Questionnaire Tutorial
- Internet forum
- Web-Conference

This research includes two steps: a pilot project and a RCT intervention.

a. Pilot project, without control group – 7 sessions, one per week, during a pedagogical school meeting to access the educational environment. 39 teachers without a control group composed the sample. The main objective of this pilot was to verify the feasibility of the training and to test the teleeducation tools used during the training.

b. RCT – Randomized Clinical Trial. Nine schools were randomized in 3 groups of different interventions: a teleeducation group; a group that received only a written material and a DVD about mental health and a 3rd group that was a waiting list group.

All teachers participating project were asked to answer questionnaires before and after the intervention. The outcomes evaluated were: knowledge about child mental health symptoms and how to deal with children with related behavioral problems, attitudes and beliefs towards mental health issues. The same outcomes that were

analyzed in the pilot project were analyzed for the RCT

RESULTS: Comparisons between pretest and posttest revealed: a discreet reduction towards stigma, and a light increase of mental health knowledge, how to proceed in face of a student with a mental disorder. Attitudes regarding

INSTITUTION AND LOCATION	DEGREE	FIELD OF STUDY
Pontifical Catholic University of São Paulo	Bachelor's Degree	Health Science – Psychology
Medical School of São Paulo – Psychiatry Department – São Paulo, Brasil	Master degree project	Health Science – Psychiatry
UNIFESP, São Paulo, Brasil	Post-graduation Lato Sensu	Health Science – Psychiatry
UNIFESP, São Paulo, Brasil	Post-graduation Lato Sensu	Health Science – Psychiatry



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mental health subjects had a significant increase.

CONCLUSIONS: It's important to implement clinical trials with a larger sample to better evaluate the effectiveness of the training and be able to generalize it's results. Once evaluated, we can expand this model to a national scale.



CLARICE SANDI MADRUGA

POSITION TITLE:

Research Associate at UNIAD/UNIFESP

INSTITUTION AND LOCATION	DEGREE	YEAR(S)	FIELD OF STUDY
Catholic University of Rio Grande do Sul (PUC-RS), Brazil	BSc	01/2001	Psychology
Federal University of Rio Grande do Sul (UFRGS), Brazil	MSc	01/2003	Biology/ Neuroscience
Sussex University, UK	MSc	08/2006	Psychology/ Substance Misuse
Federal University of Sao Paulo (UNIFESP), Brazil	Phd	12/2012	Psychiatry & Medical Psychology

BIO SKETCH:

Clarice has recently awarded a PhD degree in Psychiatry and Medical Psychology by the Federal University of São Paulo. Was a Research Associate with at the Health Service and Population Research at the Institute of Psychiatry of the Kings College in London from 2008 to 2010 and is currently a Research Associate at UNIAD at UNIFESP where she coordinates the Second Brazilian National Alcohol Survey. Her field of interest is epidemiology of addictions, where she has authored five publications in peer-reviewed journals.

SUMMARY PROJECT

ILLEGAL SUBSTANCE USE IN BRAZIL — THE SECOND BRAZILIAN NATIONAL ALCOHOL AND DRUG SURVEY (BNADS)

Clarice S Madruga, Ilana Pinsky, Raul Caetano, Ronaldo Laranjeira

Introduction: Brazil is undergoing a broad public debate as its drugs constitution is due to be reviewed. The knowledge of nationally representative consumption rates of illegal drugs should provide the necessary foundation to the debate allowing evidence-based decisions. **Method:** The Second Brazilian National Alcohol and Drugs Survey developed by the National Institute of Policies on Alcohol and Drugs (INPAD) and the Federal University of Sao Paulo, investigated the consumption of all psychotropic drugs and its associations. Dependence was assessed among cannabis and cocaine users using the Severity of Dependence Scale. The survey used probability multistage cluster sample

design to select 4607 participants aged 14 and older from 149 municipalities across the country, achieving a total response rate of 77%. Results: Over 6% of the adult population have tried cannabis at least once in their lives, 3% reported having used it in the last year. Over half of the users (62%) tried cannabis for the first time before they were aged 18. Dependence rate was 37% among all users – 0.6% in the general population. Cocaine experimentation was reported by over 4% of the adult population, whilst 2% used it in the last year. Intra-nasal cocaine rates were 4% lifetime use and 2% last year use among adults; smoked cocaine (crack/merla/oxi) was tried by 1.4% of the adult population, 1% reported having used it in the last year. Over 45% of the users have tried cocaine before they were 18 years old. Dependence was identified in nearly half of the current users (48%), injected cocaine was reported by 14% of the users. Prevalence of lifetime and last year use of all other illegal drugs combined was 4% and 1.6% respectively. Conclusion: Brazil is the second largest cocaine market in the world with regard to the sheer number of users. The knowledge of population-based studies must guide necessary changes in the health and legal systems and underlie policy makers' decisions.



CLARISSA DE ROSALMEIDA DANTAS

POSITION TITLE:

Assistant Professor

INSTITUTION AND LOCATION	DEGREE	FIELD OF STUDY
Medical School, University of Campinas (Faculdade de Ciências Médicas, UNICAMP)	MD	Medicine
Medical School University of Campinas (Faculdade de Ciências Médicas, UNICAMP)	Master of Science (MSc)	Medical Sciences/ Mental Health
Medical School University of Campinas (Faculdade de Ciências Médicas, UNICAMP)	Doctorate (PhD)	Medical Sciences/ Mental Health (schizophrenia, negative symptoms, cognition)

BIO SKETCH:

Clarissa Dantas is a full-time Assistant Professor at the University of Campinas, UNICAMP, Psychiatry Department, Medical School, Campinas, São Paulo, Brazil, since September, 2012. She finished Psychiatry residency at UNICAMP in February, 2003. Later that year she was hired as Assistant Psychiatrist at the Psychological and Psychiatric Service for Students at UNICAMP (SAPPE), where she worked until 2009 not only as a clinical psychiatrist, but also researching on university students' mental health. Simultaneously, she had been working in



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psychiatric hospitals and community mental health services with patients with severe mental disorders. She obtained her Master of Science degree at UNICAMP, in 2006, having studied insight and psychosis, and her PhD, in March, 2011, with a thesis on the psychopathology of negative symptoms of schizophrenia. In 2009 she became assistant psychiatrist at the Psychiatry Department of the Medical School, UNICAMP, and then Substitute Professor in August, 2011. She has been participating in research groups within the Psychiatry Department and in collaboration with groups from other departments and institutions. To date, she has authored and co-authored more than fifteen papers on university students' mental health, insight in psychosis, negative symptoms and cognition in schizophrenia, and psychopathology in general, published in refereed journals.

SUMMARY PROJECT:

Anomalous self-experiences in university students who seek help at a campus mental health service: evaluation during the academic year of 2013. Early detection of psychotic syndromes may have a positive impact in their in their course and outcome. Recently, a growing body of research has focused on early diagnosis and intervention. Within this context, putative genetic, neuroimaging and psychopathological markers have been investigated in an attempt to identify strong predictors of the transition to psychosis. Subtle not-yet psychotic disturbances of subjectivity, called anomalous self-experience – which comprise an unstable sense of self-presence and first person perspective, a lack of basic sense of self-identity, disturbances of the tacit fluidity of the field of awareness, hyper-reflexivity, and perplexity, i.e. a pervasive difficulty in grasping the familiar and taken for granted meanings – have been proposed as psychopathological markers. Considering that psychotic experiences and most of mental illnesses have their onset during adolescence and young adulthood, many individuals will experience their first psychiatric episode during college. The aim of this study is to investigate the occurrence of anomalous self-experience among students that spontaneously seek help at the Psychological and Psychiatric Service for Students of the State University of Campinas (SAPPE/UNICAMP) during the academic year of 2013. Clinical and socio-demographic data will be collected and the Brazilian versions of the Examination of Anomalous Self-Experience (EASE), M.I.N.I. Plus, HAM-D and HAM-A will be adopted. This study is expected to characterize the occurrence of anomalous self-experience within this population by determining its prevalence and investigating its correlation to socio- demographic, clinical and other psychopathological variables.



CRISTIANE VON WERNE BAES

POSITION TITLE:

MD, Psychiatry, MSc – PhD Student,
Post Graduation in Mental Health

INSTITUTION AND LOCATION	DEGREE	FIELD OF STUDY
Lutheran University of Brazil – ULBRA	MD	Medicine
Institute of Psychiatry Abuchaim – CEA	Specialist	Psychiatry
Universidade de Sao Paulo – USP	Master's	Mental Health
Universidade de Sao Paulo – USP	Doctorate	Mental Health

BIO SKETCH:

Graduation in Medicine at Lutheran University of Brazil in 2006 and Specialization in Psychiatry in 2010. Master in Mental Health in Program of Postgraduate of USP-Ribeirao Preto (2012). Currently making PhD in Mental Health in Program of Postgraduate of USP-Ribeirao Preto. Has experience in the clinical care of adults in psychiatry and neurology. Currently is assistant psychiatrist of outpatient psychiatric clinic of the Clinics Hospital of Ribeirao Preto of the University of Sao Paulo. Addition to developing the function of supervisor of service residency in psychiatry in outpatient clinic of Mood Disorders at the Clinics Hospital of Ribeirao Preto of the University of Sao Paulo. Moreover, develops activities of teaching and academic training, with emphasis on Mental Health, Psychiatry and Neurosciences. Published until the present time: 9 original research articles and reviews and 3 book chapters. Currently is reviewer of the journal Psychology & Neuroscience. Has participations in national conferences as a speaker as well as more than 80 participations in international congresses and national in form of poster. Their studies relate to the diagnosis and treatment of Affective Disorders, Depressive and Bipolar and its relationship with the Early Life Stress and the Hypothalamic-Pituitary-Adrenal.

SUMMARY PROJECT:

We aim to evaluate the changes of the HPA axis and in the function of glucocorticoid and mineralocorticoid receptors in depressed patients with or without early life stress (ELS). We search also evaluate the relationship between the clinical course of depression, the HPA axis measures and prediction of treatment response. METHODS: Will be selected a sample of 100 subjects composed by two main groups: a) patients with current depressive episode; b) healthy control group. From this initial sample will be two subanalysis. Firstly, 60 patients with current depressive episode will be divided into two groups according to the ELS through the Childhood Trauma Questionnaire. For the second subanalysis, the 60 patients with current depressive episode will be divided into: responders and non-responders to treatment. Patients will be assessed by the Mini International Neuropsychiatric Interview for diagnosis



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of depression. To assess the severity of depression will be used the Hamilton Depression Rating Scale and the Montgomery-Asberg Depression Rating Scale score. Endocrine evaluation will be placebo-controlled, single-blind for patients and controls, non-randomized. The effects of Fludrocortisone, Prednisolone, Dexamethasone and Espironolactone will be assessed through the salivary and plasma cortisol, adrenocorticotropic hormone (ACTH), dehydroepiandrosterone (DHEA), vasopressin (AVP), plasma renin activity (PRA), aldosterone and prolactin. The salivary cortisol will be collected at 22:00 after taking the medication or placebo and a new collect will be performed 24 hours after. Saliva samples will be collected on waking, 30 and 60 min after waking. New plasma and saliva samples will be collected between 8:00 and 8:30 min in the following days after the challenges to measure the salivary and plasma cortisol, ACTH, DHEA, AVP, PRA, aldosterone and prolactin. Patients will be evaluated at two times: in admission in the study (current depressive episode – HAM-D> 17) and 60-90 days after.



CRISTIANO DE SOUZA NOTO

POSITION TITLE:
PhD Student

INSTITUTION AND LOCATION	DEGREE	FIELD OF STUDY
Universidade Federal de Sao Paulo (UNIFESP), Sao Paulo	MD	Medicine
Universidade Federal de Sao Paulo (UNIFESP), Sao Paulo		Psychiatry Residency
Universidade Federal de Sao Paulo (UNIFESP), Sao Paulo	MSc	Psychiatry

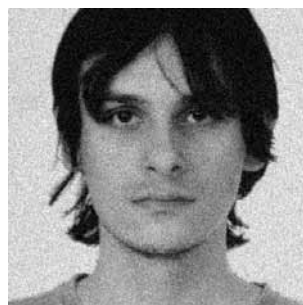
BIO SKETCH:

Cristiano Noto got his Bachelor's degree in Medicine from Universidade Federal de Sao Paulo (UNIFESP) in 2006 and did the Psychiatry Residency at the same University (2008-2011). His Master's degree was obtained from UNIFESP in 2012 with a research on biomarkers in Schizophrenia. In 2012 he went to The Zucker Hillside Hospital, NY (USA) as a Visiting Scientist. Currently he is a PhD student at UNIFESP, Department of Psychiatry. His research involves Schizophrenia, First-episode Psychosis, Inflammation and Biomarkers.. He is also coordinator of the First-episode Psychosis Research Unit at Faculdade de Ciências Médicas da Santa Casa de São Paulo (FCMSCSP). He has published scientific articles as author and coauthor in refereed journals and organized a book that summarizes the advances in the multidisciplinary treatment of schizophrenia.

SUMMARY PROJECT:

Introduction: Recent studies on schizophrenia have suggested a model in which environmental risk factors and genetic vulnerability work together for the development of the disease. Biological markers such as Brain Derived

Neurotrophic Factor (BDNF) and inflammatory cytokines are involved in the expression of many neurological and psychiatric disorders, but their role in schizophrenia are still unclear. Objective: This study analyzed serum biomarkers in patients with schizophrenia and in a group of healthy volunteers to investigate a possible association between levels of biological markers with specific clinical characteristics, such as depressive symptoms or treatment resistance. Methods: 60 patients with schizophrenia and 120 controls were included and underwent psychiatric interviews and blood withdrawn for determination of peripheral levels of BDNF and inflammatory cytokines. Results: A positive correlation was found between BDNF and depressive symptoms among patients with schizophrenia. It was also observed elevated levels of TNF receptors in patients with specific clinical characteristics. Conclusion: The results support the involvement of neurotrophins and inflammatory abnormalities in the physiopathology of schizophrenia and its possible role as a marker of disease severity.



DANIEL GRAÇA FATORI DE SÁ

POSITION TITLE:
PhD Student

INSTITUTION AND LOCATION	DEGREE	FIELD OF STUDY
Mackenzie Presbyterian University	Bachelor's degree	Psychology
Mackenzie Presbyterian University	Master of Science	Developmental Disorders

BIO SKETCH:

Daniel Fatori is currently a PhD student at the University of São Paulo Medical School (FMUSP), Department of Psychiatry. His main field of research presently is child and adolescent mental health economics. He obtained his Bachelor's degree in Psychology from Mackenzie Presbyterian University (UPM) in 2008 and Master's degree in Developmental Disorders from UPM in 2010. He is a collaborator in the Institute of Developmental Psychiatry (INPD) among many other research projects. Other areas of interest: child and adolescent psychopathology, mental health services, global mental health, epidemiology and statistics. To date, he has authored or co-authored several publications in refereed journals, including one article in The Lancet.

SUMMARY PROJECT:

BACKGROUND: Children and adolescent mental disorders (CAMD) are prevalent worldwide and are also known to cause enormous economic costs to society as a whole. Data regarding the cost of mental disorders in childhood are useful for planning the health system. However, there are no cost-of-illness studies in the field of children mental health in Brazil. OBJECTIVES: To estimate and compare the costs of (a) children diagnosed with mental disorders, (b) children with



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symptoms but no diagnosis of mental disorder, and (c) children with no mental disorder or symptoms. **METHODS:** 2512 children aged 6-12 years in schools of Porto Alegre and Sao Paulo was selected through a survey of 9937 children. Two techniques were used for sample selection: random selection of children enrolled in schools and selection of children at high risk for developing mental disorders (psychiatric family history). Instruments: assessment of mental disorders in childhood: Development and Well Being Assessment (DAWBA); survey of sociodemographic profile, use of health services and other variables, we used a comprehensive questionnaire developed specifically for the study by researchers experienced in the field of epidemiology. Variables associated with cost-of-illness that will be analyzed: treatment for mental disorders, care for school problems, social service/shelter/child protection agency/court or prosecution, expulsion and suspension from school/truancy/school failure, government benefits, accidents, unemployment of parents.



DANIEL LUCAS DA CONCEIÇÃO COSTA

POSITION TITLE:
Dr.

INSTITUTION AND LOCATION	DEGREE	YEAR(S)	FIELD OF STUDY
Univ. Estadual Paulista (UNESP) Medical School	MD	2006	Medicine
Univ. Estadual Paulista (UNESP) Medical School	Psychiatrist	2010	Residence in Psychiatry
University of São Paulo Medical School	PhD candidate	2016	Post-Graduation in Psychiatry

BIO SKETCH:

Daniel Lucas da Conceição Costa is currently a PhD student at Universidade de São Paulo (USP), Department of Psychiatry. He is conducting a clinical trial entitled "Serotonin reuptake inhibitor augmentation with NAcetylcysteine in resistant obsessive-compulsive disorder: a double-blind, randomized and controlled study".

Selected Publications

- Assunção MC, Lucas da Conceição Costa D, Mathis MA, Gedanke Shavitt R, Arzeno Ferrão Y, Rosário MC, Constantino Miguel E, Rodrigues Torres A (2012) Social phobia in obsessive-compulsive disorder: Prevalence and correlates. *J Affect Disord*
- Conceição Costa DL, Chagas Assunção M, Arzeno Ferrão Y, Archetti Conrado L, Hajaj Gonzalez C, Franklin Fontenelle L, Fossaluza V, Constantino Miguel E, Rodrigues Torres A, Gedanke Shavitt R (2012) Body dysmorphic disorder in patients with obsessive-compulsive disorder: Prevalence and clinical correlates. *Depress Anxiety*
- Diniz JB, Miguel EC, Oliveira AR, Reimer AE, Brandão ML, Mathis MA,

Batistuzzo MC, Costa DL, Hoexter MQ (2012) Outlining new frontiers for the comprehension of obsessive-compulsive disorder: A review of its relationship with fear and anxiety. *Rev Bras Psiquiatr* 34 Suppl 1:81-91

SUMMARY PROJECT:

SEROTONIN REUPTAKE INHIBITOR AUGMENTATION WITH N-ACETYLCISTEINE IN RESISTANT OBSESSIVECOMPULSIVE DISORDER: A DOUBLE-BLIND, RANDOMIZED AND CONTROLLED STUDY

Obsessive-compulsive disorder (OCD) is a debilitating psychiatric condition with a lifetime prevalence of 2-3%. The efficacy of both cognitive-behavior therapy (CBT) and serotonin reuptake inhibitors (SRI) for obsessive-compulsive disorder (OCD) treatment has been well established in controlled studies. Although most patients benefit from those treatments, up to 60% may not respond to a first trial with any of these options in effectiveness studies. Riluzole is an anti-glutamatergic agent that has been associated with improvement of OCD symptoms in an open label study of SRI augmentation. From this positive result, it has been hypothesized that other agents acting on the glutamatergic system could enhance the effect of the SRI in treatment-resistant OCD patients. The main objective of this randomized, double-blind, placebo-controlled study is to determine if N-Acetylcysteine (NAC), an anti-glutamatergic drug, is effective as an augmentation agent in treatment-resistant OCD subjects. The primary outcome is the reduction of the initial scores of the Yale-Brown Obsessive Compulsive Scale (Y-BOCS). Forty OCD patients will compose the sample and will be treated as outpatients. Half of them will receive SRI augmentation with NAC and the other half will receive placebo in association with the IRS in use. The study hypothesis is that treatment with NAC is effective in reducing OCD symptoms, as measured by the Yale-Brown Obsessive Compulsive Scale (Y-BOCS) after 16 weeks of follow-up.



ELSON DE MIRANDA ASEVEDO

POSITION TITLE:
Psychiatrist at PRISMA - Program of Intervention in Risk Mental States

INSTITUTION AND LOCATION	DEGREE	FIELD OF STUDY
Department of Psychiatry, Federal University of Sao Paulo, Brazil UNIFESP	Psychiatrist	Psychiatry
Federal University of Triângulo Mineiro	MD	Medicine

BIO SKETCH:

Elson Asevedo is a psychiatrist working at the Program for Recognition and Intervention for Individuals in At-risk Mental States (PRISMA), at Federal University of São Paulo (UNIFESP). He is a member of the International Society for Bipolar Disorders, Brazilian Psychiatric Association and Paulista



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Medical Association. Dr. Asevedo obtained his degree in Medicine at Federal University of Triângulo Mineiro, Minas Gerais, Brazil and continued his study in the Psychiatry Residency Program of UNIFESP, where he continues both as a MSc student and psychiatrist. To date, he has authored or co-authored five publications in refereed journals.

SUMMARY PROJECT:

OBJECTIVE: TO COMPARE SERUM LEVELS OF BDNF, OXIDATIVE MARKERS AND CHEMOKINES BETWEEN PATIENTS WITH SZ AND HEALTHY CONTROLS, AND INVESTIGATE THE IMPACT OF THESE BIOMARKERS IN COGNITIVE PERFORMANCE.

Methods: Thirty individuals with SZ according to DSM-IV and chronically medicated from the Schizophrenia Program at UNIFESP, and 27 healthy controls were included. The following biomarkers' blood levels were determined: BDNF, TBARS, protein carbonyl content (PCC) and the chemokines IP-10/CXCL-10, IL-8/CXCL-8, CCL-11, CCL-24/Eotaxin-2, CCL-2/MCP-1, MIP-1/CCL-3. Selected neuropsychological tasks were administered to assess verbal learning, verbal fluency, working memory, set shifting, inhibition and complex executive function tasks.

Results: Compared with the healthy control group, individuals with SZ presented significantly higher levels of BDNF and the chemokine CCL-11, and lower levels of TBARS and the chemokine IP-10/CXCL-10. Compared with healthy controls, individuals with SZ exhibited deficits in verbal learning (Hopkins test). When we examined only the SZ group, BDNF levels were positively correlated with semantic generation tasks (Spearman correlation test; $r = 0.38$, $p = 0.044$), which is a timing measure. Working memory ability, as evaluated by keep track task, was negatively correlated with PCC (Spearman correlation test; $r = -0.45$, $p = 0.014$). Regarding chemokines, CCL-11 was negatively correlated to performance in working memory test (Spearman correlation test; $r = -0.40$, $p = 0.034$), and positively correlated with cognitive flexibility task ($r = 0.51$, $p = 0.007$). IL-8/CXCL-8 was positively correlated with verbal fluency (Spearman correlation test; $r = 0.38$, $p = 0.048$). CCL-24/Eotaxin-2 was positively correlated with semantic generation ability ($r = 0.42$, $p = 0.024$) and letter memory task (Spearman correlation test; $r = 0.38$, $p = 0.049$).

Conclusions: Our results indicate that cognitive performance in SZ is associated with mediators of neuroplasticity that can be measured peripherally.



EMILENE REISDORFER

POSITION TITLE:

PhD Student at University of São Paulo
– Ribeirão Preto College of Nursing

INSTITUTION AND LOCATION	DEGREE	FIELD OF STUDY
Federal University of Santa Maria	Nursing	Nursing
Public Health School of Rio Grande do Sul	Public Health Specialist	Public Health
Federal University of Santa Catarina	Master In Public Health	Mental Health in Primary Healthcare
University of Sao Paulo	Phd in Psychiatric Nursing	Addictions in Primary Healthcare Settings

BIO SKETCH:

Emilene Reisdorfer is a Registered Nurse with an interest in Primary Healthcare and Mental Health. Psychiatric Nursing PhD student at the University of São Paulo at Ribeirão Preto College of Nursing, with internship at Faculty of Nursing of the University of Alberta. Graduated in Nursing from the University of Santa Maria, specialized in Management of Basic Health Units in the National School of Public Health Sergio Arouca and Master in Public Health, Federal University of Santa Catarina, with an emphasis on Mental Health. Her particular focus includes the situations of individuals, their families and work situations with addictions and/or mental illnesses, especially in Primary Healthcare settings. Her doctoral research is ongoing, and focus on describing the pattern of alcohol use and uncover its meaning as it relates to the professional practice of primary health care professionals. Her other research projects often involve workplace stressors and mental health, as well as addictions in the workplace. Emilene received scholarship during her doctoral and masters program of study from the Brazilian Federal Agency for Support and Evaluation of Graduate Education. Emilene's experiential background includes nursing education and clinical practice in the areas of Family Health Strategy, population and community health; pre-hospital care.

SUMMARY PROJECT:

The professional practice of primary health care professionals with their patients that use alcohol is influenced by their knowledge and understanding. What is not as well understood is the relationship between their own personal use of alcohol and their professional practice. Every day, primary healthcare professionals face patients who need specific attention related to alcohol and tobacco addictions, but in most part of the cases they do not know what to do or do not have a network to deal with the situation. One of the factors that can influence professional practice of primary healthcare professionals is their own use of alcohol and tobacco. The main objective of this study is to describe the pattern of alcohol use and uncover its meaning as it relates to the professional



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practice of primary health care professionals. Guided by Symbolic Interactionism and Grounded Theory, a mixed method design was employed in this study situated in five small towns in the South of Brazil. A cross sectional survey with 500 healthcare professionals was realized to determine the prevalence of alcohol and tobacco use for comparison with the general population. This was followed with in-depth interviews and direct observation of 39 primary healthcare professionals. To analyze the quantitative data was used a descriptive analysis. Preliminary analysis determined the presence of alcohol and tobacco use at rates lower than in the general population. Preliminary qualitative analysis has revealed that the meanings of alcohol and tobacco use are different between who use and who do not use the substances, but, in both cases, healthcare professionals realize that their alcohol use behavior should be a model for clients. These meanings influence the way in which healthcare professional approach the clients, and its caused by social interactions with themselves, family and colleagues. Also suffers interference from their training to assist alcohol and tobacco users. As consequences, healthcare professionals define themselves as care providers, having specific feelings related to alcohol and tobacco users.



FERNANDA FIEL PERES

POSITION TITLE:
MSc Student

INSTITUTION AND LOCATION	DEGREE	YEAR(S)	FIELD OF STUDY
Universidade Federal de Sao Paulo (UNIFESP), Sao Paulo	BSc	2012	Biomedicine

BIO SKETCH:

Fernanda Fiel Peres is currently an MSc student at Universidade Federal de São Paulo (UNIFESP), Department of Pharmacology. Her MSc research involves preventive pharmacological treatments in animal models of schizophrenia. She obtained her Bachelor's degree in Biomedicine from UNIFESP in 2012, and has been a member of the Interdisciplinary Lab of Clinical Neurosciences at the Department of Psychiatry of UNIFESP. To date, she has co-authored two publications in refereed journals.

SUMMARY PROJECT:

PUBERTAL CANNABIDIOL TREATMENT PREVENTS THE EMERGENCE OF BEHAVIORAL ABNORMALITIES IN AN ANIMAL MODEL OF SCHIZOPHRENIA
Schizophrenia is a severe mental disorder associated to the neurodevelopmental process whose pharmacological approaches remain unsatisfactory. Developing preventive strategies is, therefore, of extreme importance. Cannabidiol, a non-psychotomimetic compound of Cannabis sativa, has been reported to present an atypical antipsychotic profile in rodents and humans; however, so far no study

has investigated its possible preventive role. Recently, we have characterized the SHR (Spontaneously Hypertensive Rats) strain as a potential animal model of schizophrenia since it presents decreased social interaction, hyperlocomotion and deficits in pre-pulse inhibition (PPI) and contextual fear conditioning (CFC) tasks, thus mimicking negative, positive and cognitive schizophrenia symptoms. Those behavioral alterations are specifically ameliorated by antipsychotics and potentiated by proschizophrenia manipulations. The aim of this study was to evaluate the potential preventive effect of a chronic pubertal treatment with cannabidiol on the behavior abnormalities presented by adult SHR strain as well as possible collateral effects.

Male SHR and Wistar rats (WR) (10/strain/drug) were treated with vehicle, 0.5, 1.0 or 5.0 mg/kg cannabidiol (CBD) from 30 to 60 postnatal days. Four weeks after treatment cessation, the rats were submitted to the evaluation of locomotor activity, CFC, PPI and social interaction. Potential side effects were analyzed during the pubertal treatment (body weight gain and catalepsy), and forty-eight hours and one month after treatment interruption (oral dyskinesia). All experimental procedures were approved by our local ethics committee and are in accordance with the U.S. Public Health Service's Policy on Humane Care and Use of Laboratory Animals.

SHR treated with vehicle presented a decrease in social interaction time, an increase in locomotion, a deficit in PPI and impairment in CFC when compared to WR. The administration of 0.5 mg/kg cannabidiol during adolescence prevented hyperlocomotion as well as deficits in PPI and CFC in the adult SHR, although it didn't modify social interaction time. In addition, pubertal cannabidiol treatment didn't induce any of the side effects evaluated. In summary, our results indicate that cannabidiol can prevent the emergence of positive and cognitive schizophrenia symptoms without inducing side effects commonly seen with antipsychotics.



JULIANA PEDROSO MORAES VILELA DE CASTRO

POSITION TITLE:
PhD student

INSTITUTION AND LOCATION	DEGREE	FIELD OF STUDY
UNIFESP	Baccalaureate	Biomedicine
UNIFESP	Master's degree	Pharmacology

BIO SKETCH:

I am a biomedical graduated at Universidade Federal de Sao Paulo (UNIFESP) in 2004. I concluded my Master's in Sciences at the Laboratory of Neurotransmitters at Departamento de Farmacologia (UNIFESP) in 2007. From undergraduate to Master's I was involved with basic research. Between 2001 and 2003 I was studying the nephrotoxicity of antibiotics in mice mesangial cell culture at the Laboratory of Nephrology(UNIFESP). From 2003 to 2007 I studied animal models of dyskinesia, memory and sleep deprivation. I received sponsorships



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from CNPq (undergraduate) and FAPESP (Master's degree). After this time, I worked at the Laboratory of Immunogenetics, AFIP/UNIFESP as biomedical analyst (2007-2009). Nowadays, I am a Ph.D. Student at the Departamento de Psicobiologia (UNIFESP) and I have a FAPESP sponsorship. My study focuses on probable participation of sleep and sleep-wake pattern in early clinical stages of schizophrenia and bipolar disorder. This work is part from a broad study of early clinical stages headed by Dr. Rodrigo Bressan from Departamento de Psiquiatria (UNIFESP). At the same time, I have collaborated as a teacher in XII and XIII "Curso de Verão em Psicobiologia", in 2012 and 2013. I conversed on: chronobiology, circadian rhythms, and sleep history. Since my undergraduate, I have participated in national and international scientific meetings, with work presentations. My last events were: 8th International Conference on Early Psychosis, 2012, poster; 26th Annual Meeting of the Associated Professional Sleep Societies, 2012, oral presentation; II Congresso de Clínica Psiquiátrica, 2012, listener; XIII Congresso Brasileiro do Sono, 2011, oral presentation; World Association of Sleep Medicine, 2011, oral presentation. I have authored, and co-authored six publications, plus two submitted papers.

SUMMARY PROJECT:

Study of sleep and sleep-wake cycle patterns as possible predictors of psychosis and bipolar disorder development in individuals in ultra-high risk. The study of early clinical stages of severe mental diseases shows more and more importance. These stages have been called at-risk mental state-ARMS. Recent evidences suggest being possible identifying it based on clinical evolution, although the current knowledge lacks of efficient prediction mechanisms. Behavioral data support the idea that psychosis and bipolar disorder associate with sleep disturbances. In addition, sleep and sleep-wake cycle alterations relate to emotional responses and several events, increasing the chance of a vicious cycle between these alterations and emotional imbalance. It is possible that sleep disturbances are present in ARMS and could participate in its prediction. This study is part from a thematic project: Prevention in Schizophrenia and Bipolar Disorder, whose principal investigator is Dr. Rodrigo Bressan. The idea is recognizing possible predictors of psychosis and bipolar disorder in the individuals with ARMS. Aim: Evaluate if there is a participation of sleep pattern and/or sleepwake cycle pattern in the prediction of psychosis and bipolar disorder in individuals with ARMS. Methods: Fifty individuals of both genders, between 12-25 years old, will be distributed in two groups (25 volunteers with ARMS, and 25 healthy control volunteers). Instruments: sleep questionnaires, complete full-night polysomnography, and actigraph. Partial results: Eleven individuals (7 men, 4 women) fulfill ultra-high risk criteria based on Comprehensive Assessment of At-Risk Mental State (CAARMS). The mean age \pm SD was 18.7 ± 1.1 years; the body mass index (kg/m^2) \pm SD was 22.4 ± 1.3 in men and 18.5 ± 0.8 in women. Both genders are eutrophic. Data pointed out an increase of N1 and N3 percentages (6.8 ± 1.4 and 29.1 ± 2.2 , respectively) while a decrease was observed in the REM stage percentage (14.3 ± 2.3). These preliminary results seem indicating relevant changes in the normal sleep distribution in ARMS. Expected outcomes: Our study is ongoing and partial results encouraged us about the next ones, mainly regarding to other parameters that will be investigated, such as microstructure of sleep and actigraphy.



LETÍCIA MARIA NERY SPÍNDOLA

POSITION TITLE:

Biomedicine graduate

INSTITUTION AND LOCATION	DEGREE	FIELD OF STUDY
Universidade Federal de São Paulo (São Paulo)	Biomedicine	Genetics

BIO SKETCH:

Letícia Maria Nery Spíndola is biomedicine graduate and came to Genetics Division of the Department of Morphology and Genetics of Federal University of São Paulo (UNIFESP) to do a Scientific training. Born in São Paulo, Letícia explains that she went into biomedicine because she became interested in etiology and treatment of human disorders. She received an degree from Universidade Federal de São Paulo (UNIFESP) in 2012. In 2013, she will start her Master degree at Genetics Division of UNIFESP. She will work with high risk children for mental disease.

SUMMARY PROJECT:

EFFECT OF DRD1 rs4532 AND DRD2 rs1799732 POLYMORPHISMS ON TREATMENT RESISTANT SCHIZOPHRENIA

Dysregulation of dopaminergic neurotransmission is involved in the pathophysiological processes of schizophrenia and, hence, some studies have investigated the role of genes encoding dopamine receptors. Regarding therapeutics aspects, the overall treatment response is still limited and it is estimated that 20-30% of patients who have schizophrenia do not respond to treatment with conventional antipsychotics. The aim of this study was to investigate the association between DRD2 rs1799732 (-114C Ins/Del) and DRD1 rs4532 (A/G) polymorphisms with schizophrenia diagnosis and treatment resistant (TR) schizophrenia. In the case-control study, we have analyzed 208 patients with schizophrenia and 262 healthy controls. For investigate the effect of those polymorphisms on TR schizophrenia, we have analyzed 134 patients. The subjects were genotyped for rs1799732 and rs4532 polymorphisms by TaqMan probe based real time PCR assay and PCR-RFLP methods, respectively. Considering DRD1 polymorphism, we found an association between G-allele and TR schizophrenia ($p=0.002$; OR=2.58; 95% CI=1.41-4.71). Reinforcing this finding, for genotypes, we found a dose-response gradient with risk increasing with the number of G-allele copies: GG-homozygous presented a five-fold risk compared to AA-homozygous ($p=0.017$; OR=4.758; 95% CI=1.319-17.161) and an intermediate result for AG-genotype ($p=0.058$; OR=2.282; 95% CI=0.973-5.354), setting the common AA-genotype as reference. On the other hand, there was no significant difference in the allele ($p=0.272$) and genotype ($p=0.403$) frequencies of rs1799732 between patients and controls. Moreover, we have not found association between rs1799732 genotypes ($p=0.998$) or alleles ($p=0.300$) and TR schizophrenia. Although we have not find association between rs4532 polymorphism and schizophrenia ($p=0.883$), our result



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suggests a possible role of DRD1 rs4532 polymorphism on TR schizophrenia, with G-allele being the genetic risk factor. Therefore, rs4532 polymorphism may be a feasible pharmacogenetic marker for treatment response to antipsychotic drugs, influencing directly on clinical treatment outcome.



LUCAS BORTOLOTTI RIZZO

POSITION TITLE:
PhD Student

INSTITUTION AND LOCATION	DEGREE	YEAR(S)	FIELD OF STUDY
Universidade Federal do Rio Grande do Sul (UFRGS), RS	BSc	2012	Biomedicine

BIO SKETCH:

Lucas Rizzo is currently Phd student at Universidade Federal de São Paulo (UNIFESP), Department of Psychiatric and Medical Psychology. His PhD research involves immunology and aging in sub chronic and chronic bipolar patients. He has 3 years of experience in the psychiatric field as scientific initiation student in the Laboratory of Immunosenescence at Pontifícia Universidade Católica do Rio Grande do Sul (PUCRS), and his Final Paper was about early aging in patients with bipolar disorder. To date, he has authored or co-authored four publications in refereed journals, one book chapter.

SUMMARY PROJECT:

BACKGROUND: Bipolar disorder (BD) has been associated with increased low-grade inflammation and premature cell senescence, as shown by reduced telomere length (TL). The human cytomegalovirus (CMV) promotes a latent asymptomatic infection in immunocompetent adults, and it has increasingly been involved with accelerated immunosenescence in aging studies. Here, we investigated the CMV serology and its relationships with cell senescence markers including TL and lymphocyte subsets in type 1 BD and healthy controls. **RELEVANCE FOR THE FIELD:** Despite the concept of accelerated cell aging may be a key role factor for the pathophysiology of bipolar disorder, it is still under-investigated. **MAIN OBJECTIVES:** To investigate the CMV serology and its relationships with cellular senescence markers including telomere lengths (TL) and lymphocyte subsets in euthymic patients with type 1 BD and healthy controls. **METHODOLOGY:** Peripheral blood mononuclear cells and DNA were isolated and TL measured in twenty-two euthymic female BD type 1 patients and 17 age-matched controls by RT-qPCR. CMV-IgM and IgG titers were assessed by chemiluminescent assays. Lymphocyte subsets (T, NK, NKT) were phenotyped by flow cytometry. **RESULTS OR EXPECTED RESULTS:** BD patients had shorter TL but increased CMV-IgG levels than controls (all $p < 0.01$). The CMV-IgG levels were inversely correlated with shorter the telomeres. None of the subjects showed IgM reactivity for CMV, excluding acute viral infection.

CMV-IgG levels were associated with expansion of senescent CD8+CD28- T cells and NK cells, involved with viral control. **CONCLUSIONS OR EXPECTED OUTCOMES:** These data concur to the hypothesis early accelerated aging in BD as shown by shortened telomeres and expansion of senescent T cells. This study also indicates that CMV infection may be a driving force in the process of early immunosenescence in BD.



MARCOS LEITE SANTORO

POSITION TITLE:
PhD Student

INSTITUTION AND LOCATION	DEGREE	FIELD OF STUDY
Universidade Estadual Paulista, São Paulo	BSc	Biomedicine
Universidade Federal de São Paulo, São Paulo	MSc	Morphology and Genetics
Universidade Federal de São Paulo, São Paulo	PhD	Morphology and Genetics

BIO SKETCH:

Marcos Santoro is currently PhD student at Morphology and Genetics Department of São Paulo Federal University (UNIFESP). His research involves epigenetic and genetic aspects of schizophrenia, focusing in the prodromal phase of the disease. His Bachelor's degree in Biomedicine was obtained at Universidade Estadual Paulista in 2009 and his Master's degree in Morphology and Genetics was concluded in 2012, at Universidade Federal de São Paulo. The student is a member of the Interdisciplinary Lab of Clinical Neurosciences at the Department of Psychiatry of UNIFESP, and at the moment, he is the co-author of 3 publications.

SUMMARY PROJECT:

Schizophrenia and bipolar disorder (BD) are neurodevelopmental illnesses that cause an enormous burden of suffering, high morbidity and mortality rates. Both are complex diseases characterized by alteration in multiple genes, combined with epigenetic modifications and environmental factors. Since these disorders are diagnosed, the patients need care and treatment for the rest of their lives. Therefore, it is very important to study these disorders before transition to psychosis to better understand the pathophysiology of schizophrenia and BD, and also to find out biomarkers that can predict this transition. The aim of the present study is to analyze the gene expression of 28 mRNAs and 88 miRNAs related to neurotransmission in four groups: 80 health subjects; 80 patients in first episode of psychosis; and 80 subjects Ultra High Risk (UHR) for psychosis, 20 of them with DiGeorge syndrome. Besides, it is expected a transition rate of 25% to psychosis in a follow up of two years, in which we will also analyze the gene expression of mRNA and miRNA. The



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gene expression will be verified through Real Time qPCR technology. With this study, we expect to find differential expression of mRNA and miRNA, in order to discover new biomarkers of progression and transition to psychosis. To our knowledge, there is no such study investigating gene expression of mRNA or miRNA in a UHR sample.



NAYANNE BECKMANN BOSAIPO

POSITION TITLE:
Doctorate Student

INSTITUTION AND LOCATION	DEGREE	FIELD OF STUDY
Federal University of Uberlandia - UFU	Baccalaureate	Psychology
Federal University of Uberlandia - UFU	Specialist	Neuropsychology
University of Sao Paulo - USP	Master's	Psychology
University of Sao Paulo - USP	Doctorate	Mental Health

BIO SKETCH:

I was Graduated in Psychology at Universidade Federal de Uberlandia (2009) and got a Master Degree in Science (Psychobiology) at the University of São Paulo (2012). During this time I gained experience in clinical psychology on cognitive behavioral approach and neuropsychological assessment, and later in the area of psychobiology and translational research. It is worth mentioning that in my Master's research, we got interesting results showing that the expression of two glutamate transporters proteins in the brain of rats reared in social isolation since weaning through adulthood was altered. Currently I am a doctoral student in the Graduate Program in Mental Health, Department of Neuroscience and Behaviour, Faculty of Medicine of Ribeirao Preto, on Professor Dr. Mario Juruena supervision. My actual research is on the neuropsychological and neuroendocrinological alterations in adulthood caused by early-life stress. We intend to perform a translational work correlating clinical and basic research data. Unfortunately, since my research is at an early stage, we have not yet results to show. My research area includes: Psychiatric Disorders of Neurodevelopment; Neurobiology of Stress and Depression, Stress Effects of Early adulthood and Neuropsychology.

SUMMARY PROJECT:

The early stress is considered a risk factor for psychiatric disorders. Evidence indicates that adverse experiences early in life combined with genetic background culminate in increased sensitization of certain circuits, especially related to the pathophysiology of depression. Studies have described the effects of early-life stress with different focuses, such as on HPA activity, changes of emotional behavior and cognition, or the plasticity of the

hippocampus. However, it is not known to what extent and what are the mechanisms through which all these points are associated. In this regard, the combination of experimental techniques and translational studies may help to clarify those issues. Considering that, the aim of this work is to investigate the HPA axis activity and cognitive functions mediated by the hippocampus and prefrontal cortex in subjects with depression and a history of early life stress. The methods proposed for this investigation include a translational model that will integrate experimental studies using rats submitted to maternal separation and clinical studies that will include patients with history of early-life stress.



PATRICIA NATÁLIA OLIVEIRA DA SILVA

POSITION TITLE:
Post Doc Student

INSTITUTION AND LOCATION	DEGREE	FIELD OF STUDY
Universidade do Vale do Itajaí- UNIVALI, Santa Catarina	BsC	Biotechnology
Universidade Federal de São Paulo, São Paulo	MsC	Morphology and Genetics
Universidade Federal de São Paulo, São Paulo	PhD	Morphology and Genetics
Universidade Federal de São Paulo, São Paulo	Post Doc	Psychiatry

BIO SKETCH:

Patricia Silva is currently a post doc student at Psychiatry Department of São Paulo Federal University (UNIFESP). Her research involves epigenetic and genetic aspects of schizophrenia, and response to pharmacological treatment in schizophrenia. Her Bachelor's degree in Biology/Biotechnology was obtained at Universidade do Vale do Itajaí in 2004 and her Master's degree in Morphology and Genetics was concluded in 2007, at Universidade Federal de São Paulo. Her PhD degree in Functional and Structural Biology was obtained in 2012, also at Universidade Federal de São. The student performed part of her PhD research at the King's College London, under supervision of Dr. Jonathan Mills. The student is a member of the Interdisciplinary Lab of Clinical Neurosciences at the Department of Psychiatry of UNIFESP, and at the moment, she is the author of 8 publications.

SUMMARY PROJECT:

Schizophrenia is the most severe and debilitating mental illness among the psychiatric disorders. It's a complex disease characterized by alterations in multiple susceptibility genes, which possibly act together with epigenetic and environmental processes. The current project aims to investigate gene expression of candidate genes for the development of schizophrenia and/or the response to pharmacological treatment. Moreover, we aim to evaluate miRNAs



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levels to investigate a possible epigenetic regulation of the genes evaluated in this project and others described in literature, as well as investigate the role of miRNA in treatment resistant schizophrenia (TRS). Eighty patients being treated with antipsychotics will be evaluated, 40 of them are responders to treatment (non-TRS), and the other 40 are nonresponders (TRS). Peripheral blood samples will be collected from all subjects and RNA will be extracted from white blood cells. Gene expression will be performed with PCR array and will investigate 28 genes involved in neurodevelopment, myelination, neuroplasticity and neurotransmission. Simultaneously, miRNA levels will be quantified in patients non-TRS and TRS using a commercial plate with 84 miRNAs sequences, related to neurodevelopment and neurotransmission. The miRNAs investigation on response to pharmacological treatment of schizophrenia will provide new data on literature, and the results may provide a more effective treatment of schizophrenia, as well as a decrease on time of non-treated cases.



PEDRO MARIO PAN

POSITION TITLE:

MSc Student at Federal University of Sao Paulo (UNIFESP)

INSTITUTION AND LOCATION	DEGREE	FIELD OF STUDY
PUC – PR	MD	Medicine
Federal University of Sao Paulo (UNIFESP)	Medical Internship	Psychiatry

BIO SKETCH:

Pedro Mario Pan has graduated in medical school in 2007 at PUC-Paraná, Brazil and has finished psychiatry residence program in 2010 at Universidade Federal de Sao Paulo (UNIFESP), Brazil. Currently, Pedro is a MSc student at Universidade Federal de Sao Paulo and at the National Institute of Developmental Psychiatry for Children and Adolescent (INPD) taking part in the “High Risk Cohort Study for the Development of Childhood Psychiatric Disorders – the Prevention Project”. This study is a large community school-based cohort which combines psychopathology, cognitive neuroscience, genetics and neuroimaging. In the Prevention Project, Pedro is particularly interested in evaluating the trajectory of Bipolar Symptoms in childhood and early adolescence. He has authored or co-authored six publications in prominent peer-reviewed journals, such as Psychological Medicine and JAACAP.

SUMMARY PROJECT:

MANIA-LIKE SYMPTOM DIMENSIONS AND LATENT STRUCTURE IN CHILDHOOD AND EARLY ADOLESCENCE: ASSOCIATIONS WITH PARENTAL PSYCHOPATHOLOGY AND

Background: The phenomenology of pediatric bipolar disorder remains controversial. To facilitate accurate diagnosis, it is important to define the dimensional structure of mania-like symptoms in non-clinical pediatric

populations and the associations of these symptoms with functional impairment and familial risk. Bearing in mind that high risk and prodromal research of Bipolar Disorder is far from the development reached by the psychosis field (symptoms groups, criteria definitions, prospective evaluation), we aim to enhance the knowledge of subthreshold bipolar symptoms in young individuals.

Methods: We have assessed parent-reported mania-like symptoms with Development and Well Being Assessment (DAWBA) in 2,512 children (6–12 years-old). This sample was selected from 9,937 subjects screened in 57 Brazilian public schools. Individuals positively screened for “episodes of going abnormally high” completed a specific BD section (n=479; 19.1%). Confirmatory Factor Analysis was used to test the model fit of a two-factor solution previously found: “Under-controlled (UC)” and “Exuberant (EX)”. We also used Latent Class Analysis (LCA) to identify groups of individuals affected by mania-like symptoms at different degrees of severity and Item Response Theory investigated the severity and discrimination ability of each symptom. The associations of both latent constructs with psychiatric comorbidity, psychosocial impairment, and family history of psychopathology were tested. Results: The two-factor model provided a good-fit to the previously proposed model. Multivariate analysis revealed that only UC dimension was independently associated with other psychiatric diagnosis and psychosocial impairment. The LCA yielded a small group of children with high levels of manic symptoms and a distinct profile of psychiatric comorbidity and impairment, called the “High-symptom group”. Further, we identified significant associations between the UC dimension and the “High-symptom group” with parental history of affect-related disorders (Depression, Mania, and Suicide Attempts); but not with family history of ADHD and Substance-Use Disorders. Both UC and EX items discriminate subjects across the “mania-like” latent trait, but EX items lay at the mild end of the severity spectrum while UC item lay at the severe end.

Conclusions: In a large community-based sample, we extended previous findings of meaningful mania-like dimensions in childhood and early adolescence, and demonstrate specific familial associations with affect-related disorders. These latent constructs may be a proxy for the development of full BD and constitute an ‘at-risk’ group for the disorder. Analysis of the already collected data on cognition, neuroimaging and blood biomarkers, altogether with ongoing longitudinal assessments in this sample will provide information concerning the stability of mania-like symptoms and conversion to full-blown BD.



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ROSANE LOWENTHAL

POSITION TITLE:

Postdoctoral Fellowship at
Department of Psychiatry,
Federal University of São Paulo



SABRINA HELENA BANDINI RIBEIRO

POSITION TITLE:

Doctor Degree Student at Department
of Psychiatry, Federal University of São
Paulo, psychologist

INSTITUTION AND LOCATION	DEGREE	FIELD OF STUDY
Universidade de São Paulo (UNICID)	BSc	Odontology
Universidade Presbiteriana Mackenzie – São Paulo –Brazil	MSc	Development Disorders
Universidade Presbiteriana Mackenzie – São Paulo –Brazil	PhD	Development Disorders

BIO SKETCH:

Rosane Lowenthal is currently a Postdoctoral student at Universidade Federal de São Paulo (UNIFESP), Department of Psychiatry. Her Ph.D. research involves a training of child and adolescent mental health for Primary Care providers and telemedicine. She obtained her Bachelor's degree in Odontology from UNICID in 1988 and Master's and PhD's degree in Development Disorders from Mackenzie in 2006 and 2012. Nowadays she is doing her postdoctoral at the Department of Psychiatry of UNIFESP. To date, she has authored or co-authored nine publications in refereed journals.

SUMMARY PROJECT:

A TRAINING OF CHILD AND ADOLESCENT FOR PRIMARY CARE PROVIDERS – PILOT STUDY

Rosane Lowenthal, Cristiane Silvestre de Paula, Chao Lung Wen

Providers from Primary Care Centers (UBS) must assist all individuals from a certain region, including child mental health problems. However, no specific mental health training is provided to professionals from UBS. Thus, the aims of this study are to develop, implement and evaluate an education model via tele-education on child mental health to train health professionals from Primary Care Centers (UBS). It is a pilot study to test a training model structured in two modules: distance learning environments and face-to-face classes. Twenty five professionals, 12 doctors and 13 nurses, from five UBSs from São Paulo city, were trained. For the distance module, interactive tools were used. The face-to-face components were based on a structured training to promote better communication between health professionals, parents and children/adolescents. The professionals were evaluated before and after training, according to (1) Specific Knowledge questionnaire (SK) and (2) a Knowledge, Attitude and Practice survey (KAP). Overall, there were a statistically significant improvement in mental health knowledge after training, in comparison to the knowledge before training ($p < 0.01$). The mean was 6.03 and changed to 6.70 after distance module. No differences were identified between doctors and nurses. Besides, there were positive results in all three domains assessed by the KAP survey: knowledge, 21.09 to 27.04 ($p < 0.01$); attitude, 10 x 26.61 ($p < 0.01$), and practice 58.13 to 63.22 ($p = 0.02$). This pilot study shows that the developed model, including distance and face-to-face modules, is feasible and able to improve KAP among primary care providers from São Paulo city, Brazil.

INSTITUTION AND LOCATION	DEGREE	FIELD OF STUDY
Mackenzie Presbyterian University, São Paulo, Brazil	Bachelor's Degree	Psychology
UNIFESP, São Paulo, Brazil	Post-graduation Lato Sensu	Fetal medicine
Mackenzie Presbyterian University, São Paulo, Brazil	Master of Science	Pervasive Developmental Disorders

BIO SKETCH:

Sabrina Ribeiro is currently a PHD student at Universidade Federal de São Paulo (UNIFESP), Department of Psychiatry and Medical Psychology. Her PHD research investigates early signs of autism perceived by parents and professionals in the field. She obtained her bachelor and licensure's degree in Psychology from Universidade Presbiteriana Mackenzie in 2002. In 2007, she concluded her Master research on Developmental Disorders under a CAPES scholarship from the same institution. She currently coordinates the Psychology Ambulatory of Social Cognition at UNIFESP. She has also co-authored and published relevant articles and book chapters in the field.

SUMMARY PROJECT:

PILOT-STUDY _AUTISM DIAGNOSIS: THE PARENT'S PATHWAY BETWEEN THE FIRST CONCERNS ABOUT SIGNS OF AUTISM AND THE LATER DIAGNOSIS: THE BRAZILIAN REALITY

A fundamental component of medical practice is parent appraisal of child development. Developmental history taking, including elicitation of parental concerns is used to alert physicians to the possibility of conditions requiring further evaluation. As the incidence of autism spectrum disorders increased, concerns about the possibility of this condition occur among their siblings is becoming very frequent. Early identification of autism is paramount but, despite efforts, there are children who are being identified at a later age. Retrospective studies indicate that parents recognize signs of autism far earlier than it is diagnosed, sometimes before the first birthday.

Objective: To study the relationship between parents concern about development in the first years and later autism identification and to establish a training program for screening early detection and intervention strategies such as instructions to pediatricians and primary care clinicians.

Method: Parent concerns questionnaire about first development will be collected for people with autism, using a retrospective longitudinal study design. Parents will be asked about the time of developmental concerns and what signs they observed until the time of diagnosis and what they did, which



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medical services were consulted and also what was the intervention choice. Participants were recruited at an out-patient unit, the “Cognition Social Ambulatory”, at Federal University of São Paulo. The sample was comprised by 194 children and adolescents with autism (29 females and 165 males) whose diagnosis was confirmed by the Social Communication Questionnaire (SCQ) and a clinical interview by a psychiatrist.



TACIANA GONTIJO DA COSTA DIAS

POSITION TITLE:
Ph.D. student

INSTITUTION AND LOCATION	DEGREE	FIELD OF STUDY
Universidade Federal de Uberlândia, Uberlândia, MG	MD	Medicine
Universidade Estadual de Maringá, Maringá, PR, Brazil	Residency	Psychiatry
Oregon Health & Science University (OHSU)	Master of Clinical Research	Clinical Research

BIO SKETCH:

Taciana Costa Dias graduated in Medicine from Universidade Federal de Uberlândia, Uberlândia, MG, Brazil, in January/2006. She completed residency in Psychiatry at Universidade Estadual de Maringá (Maringá, PR, Brazil) in January/2008, and in Child and Adolescent Psychiatry at Hospital das Clínicas da Faculdade de Medicina de Ribeirão Preto – USP (Ribeirão Preto, SP, Brazil) in January/2009. She then went to Portland, OR, USA, where she did a Master of Clinical Research at Oregon Health & Science University (OHSU), getting her degree in June/2011. At OHSU, Dr. Costa Dias worked under the supervision of Dr. Joel Nigg and Dr. Damien Fair, interested in applying neuroimaging techniques, especially resting-state functional connectivity MRI, to study psychiatric disorders in childhood, in particular attention deficit/hyperactivity disorder (ADHD). Dr. Costa Dias recently returned to Brazil and is now a Ph.D. student at Universidade de São Paulo, Institute of Psychiatry, under Dr. Guilherme Polanczyk's mentorship. Her project aims to evaluate the interaction/connectivity between brain regions of the reward system and its relationship with behavior in children with disruptive disorders and with typical development. Dr. Costa Dias has published 4 papers in leading journals, such as *Frontiers in Systems Neuroscience*, *Biological Psychiatry*, *Frontiers in Psychiatry* and *European Neuropsychopharmacology*. She is the first author of this last one, which is related to her master's degree project. Dr. Costa Dias has also participated in numerous international meetings and conferences in the field of psychiatry and neuroscience, where she presented her work as posters or short talks. Examples of meetings she participated are: EUNETHYDIS International ADHD Conference (2012), Organization of Human Brain Mapping (2011), Meeting of the American Academy of Child and Adolescent Psychiatry (2010). She has received 2 awards for work she has presented: Best Post-Doc Poster Presentation (SfN – Oregon Chapter, 2010) and Outstanding Research

Employee Presentation (OHSU Research Week, 2012).

SUMMARY PROJECT:

DISTINCT COMMUNITIES OF CHILDREN WITH AND WITHOUT ADHD BASED ON FUNCTIONAL CONNECTIVITY PATTERNS OF THE REWARD SYSTEM

Introduction: An obstacle likely limiting our ability to clarify ADHD etiology is heterogeneity in the population. Graph theory and community detection techniques, combined with brain functional connectivity, may assist to overcome this obstacle. We aimed to evaluate whether distinct subgroups in a sample of children with and without ADHD could be determined based on functional connectivity patterns of the reward system – a system hypothesized as being highly involved in ADHD. **Methods:** The region most selectively associated with reward in the functional MRI literature was determined by an automated brain-mapping meta-analysis platform (Yarkoni, Poldrack, Nichols, Van Essen, & Wager, 2011) (consistent with left nucleus accumbens – NAcc). We applied a community detection procedure to the functional connectivity maps (using the reward region as a seed) of 106 children with and without ADHD (aged 7-12), to identify groups based on connectivity patterns. **Results:** Three distinct communities were identified: group A (24 controls, 9 ADHD), group B (29 controls, 17 ADHD), and group C (11 controls, 15 ADHD). In group A, NAcc was positively connected to the default network and negatively connected to the task positive network; in group B, NAcc was negatively connected to the fronto-parietal network; and in group C, NAcc was strongly negatively connected to the cingulo-opercular network. Within group A, compared to typically developing children, children with ADHD had weaker functional connectivity between NAcc and posterior cingulate cortex. Within group B, children with ADHD had weaker negative connectivity to the parietal cortices. Within group C, the ADHD group had weaker negative connectivity to regions of the cingulo-opercular network. **Conclusions:** Our findings show that children with ADHD and typically developing children can be classified into distinct subgroups according to brain functional connectivity. Thus, combining neuroimaging data and community detection techniques might be an important tool to elucidate heterogeneity in ADHD etiology.



TAIS SILVEIRA MORIYAMA

POSITION TITLE:
PhD Student, Consultant Psychiatrist

INSTITUTION AND LOCATION	DEGREE	FIELD OF STUDY
UNIFESP- Brazil	MD	Medicine
UNIFESP- Brazil	MSc	Psychiatry

BIO SKETCH:

Tais S. Moriyama is currently a PhD student at Federal University of Sao Paulo (UNIFESP) and a consultant child and adolescent psychiatrist at University of São Paulo (USP). Under the supervision of Prof. Rodrig Bressan and the co-supervision of Prof. Jim van Os she is studying the clinical significance of



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psychotic experiences in a large sample of 2,400 community-based children and adolescents at increased risk for mental disorders. Tais obtained her degree in Medicine from UNIFESP in 2003 and made her specialty training in Psychiatry and subsequently in Child and Adolescent Psychiatry in the same University. Since 2008 she has acted as the coordinator of the outpatients clinic for children and adolescents with early onset psychosis from UNIFESP (PAPIA). She started her research career studying mental health problems associated with neurological disorders and obtained a Master's degree in science from UNIFESP in 2010 for her work on the association of social phobia and Parkinson's disease; during her MSc she co-authored 9 indexed publications on the association of mental health problems and physical illness and some other publications in psychiatry. Since 2009 she is getting increasingly involved with developmental psychiatry and has been working in this field as a researcher in the Interdisciplinary Laboratory of Clinical Neuroscience (LiNC- UNIFESP), in the National Institute of Developmental Psychiatry for Children and Adolescents (INPD- CNPq) and in the Research Support Center on Neurodevelopment and Mental Health (NAP-N&SM- USP).

SUMMARY PROJECT:

Subclinical psychotic experiences (PE) during adolescence and childhood may represent the behavioral expression of liability for psychosis. Children, however, are expected to have certain level of difficulty in distinguishing reality and fantasy and disproportional fear of specific situation happens in normal development. If the presence of PE confers increased risk for mental disorders than the assessment of this symptoms should be routinely made in clinical practice. Our aim is to investigate to which extent PE in children and adolescents represents a consistent phenotype and if it is associated with psychiatric morbidity and functional impairment. We evaluated 2,400 community-based children recruited based on their family history for mental disorders. All children were assessed for the presence of 20 PE using self-report (SR) and item level clinical judgment (CJ); risk factors; cognitive skills; DSMIV diagnosis; family history of mental disorders; global functioning. SR and CJ had acceptable to good internal consistence. Exploratory factorial analysis showed self reported items to best fit a two factors model, one comprising delusions and the other sensorial experiences. Frequencies of at least one PE are higher for SR than for CJ (80% vs 14%) but individual's rank according to SR has good resemblance with that of CJ. Both self-reported and clinically rated PE are associated with higher SDQ difficult and impact scores, less positive behaviors, worse organization of speech, higher parents rated CBCL scores in all dimensions, and were more likely to have separation anxiety and ADHD inattentive subtype. Main caregiver diagnosis of anxiety and mood disorders but not of other mental disorders was associated with children PE. Family history of generalized anxiety disorder and social phobia but not of other mental disorders predicted PE in children. Going to daycare centers before the age of 3 and having spent less time of life in contact or living with the father predisposed to PE. Traumatic life events involving intention to harm but not accidents were associated with PE. CAPE scores were also associated with higher differences between verbal and non-verbal IQ and with basic processing deficit but not with other cognitive tasks. All reported results were significant even after adjustment for demographic characteristics.



**VANESSA KIYOMI
ARASHIRO OTA**

POSITION TITLE:
PhD Student

INSTITUTION AND LOCATION	DEGREE	FIELD OF STUDY
Universidade Federal de Sao Paulo (UNIFESP), Sao Paulo	BSc	Biomedicine
Universidade Federal de Sao Paulo (UNIFESP), Sao Paulo	MSc	Morphology and Genetics

BIO SKETCH:

Vanessa Ota is currently a PhD student at Universidade Federal de Sao Paulo (UNIFESP), Department of Morphology and Genetics. Her Ph.D. research involves genetics, gene expression and epigenetics studies in schizophrenia and first-episode psychosis. She obtained her Bachelor's degree in Biomedicine from UNIFESP in 2008 and Master's degree in Functional and Structural Biology from UNIFESP in 2011. She has also been a member of the Interdisciplinary Lab of Clinical Neurosciences at the Department of Psychiatry of UNIFESP. To date, she has authored or co-authored nine publications in refereed journals.

SUMMARY PROJECT:

Despite the large number of genetic studies in schizophrenia, little is known about how genes expressed in blood relate to the disease diagnosis or treatment response. In this pilot study, we compared the expression of neurotransmitter receptor and regulatory genes in whole blood of ten drug-naïve first-episode psychosis (FEP) patients and nine healthy controls. Whole blood was drawn from patients during clinical evaluations at admission and after 8 weeks of risperidone treatment. Gene expression was assessed with a RT ProfilerPCR Array System, which interrogates 84 neurotransmitter receptors and regulatory genes. Genes with undetected expression were excluded and a preliminary analysis was performed using Mann-Whitney U test (FEP x control) and Wilcoxon (after treatment-AF x FEP). Fourteen genes were undetectable in all three groups: CHRNA4, GABRA2, GABRA3, GABRB2, GABRE, GABRG1, GABRP, QRFP, NPFFR2, GRIA1, HTR2A, NPY1R, NPY2R, and SSTR1. In addition, some genes that could not be classified as expressed or non-expressed may have their expression regulated by psychosis condition or risperidone treatment, thus, they are good candidates for investigation in larger samples (DRD2, CHAT and PROKR1). This result would be important to future studies. Regarding the expressed genes, none of the association remained after Bonferroni correction for multiple comparisons. We believe that the report of preliminary results can be very helpful to future studies to define the best investigation techniques in terms of equipment and target tissue.



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